# TECHNIQUES OF GUIDANCE

REVISED EDITION

TECHNIQUES OF GUIDANCE

EDUCATION FOR LIVING SERIES

Under the Editorship of H. H. REMMERS

# TECHNIQUES OF GUIDANCE

by ARTHUR E. TRAXLER

EXECUTIVE DIRECTOR EDUCATIONAL RECORDS BUREAU

REVISED EDITION



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To the Memory of My Father and Mother

EDWIN C. TRAXLER

and

ORA WELLS TRAXLER

Teachers and Counselors

of Kansas Youth

for Many Years

# *Contents*

# *Foreword to the First Edition*

For about nine years I have been associated with the Educational Records Bureau, the main function of which is to assist its member institutions in the use of objective techniques in guidance. The Bureau helps the schools plan two testing programs annually; fills orders for the tests recommended for these programs; provides scoring, statistical, and reporting services; maintains a cumulative-record service; carries on research with the test results; and makes suggestions concerning the uses and limitations of the results by means of personal interviews, correspondence, and publications.

Since coming to the Bureau I have written for our member schools a considerable number of articles, bulletins, and other manuscripts on testing and guidance. Some of these have been published and some are in unpublished form. This book consists of an organization, revision, and synthesis of these materials, together with other material written specifically for it.

The approach to guidance as represented by this book is relatively uncomplicated, objective, straightforward, and matter-of-fact. The central idea is to gather as much relevant information as possible about each pupil, organize it so that it shows both status at any given time and growth over a period of years, and use these data with understanding in the distribution and adjustment of individual pupils. If this book is able to help schools apply these procedures, it will have accomplished its main purpose.

Since questions received from those who perform guidance functions show that specific information and concrete suggestions are especially needed and desired, I have included in the book much detailed explanation concerning tests and other instruments of evaluation and a large number of illustrative record forms.

For consistent encouragement and sympathetic criticism in the first preparation of much of this material, I am deeply indebted to Professor Ben D. Wood, of Columbia University, director of the Educational Records Bureau, and to Mrs. Eleanor Perry Wood, formerly associate director. I was persuaded to put the material into book form by Professor H. H. Remmers, of Purdue University,

to whom I am grateful for advice and editorial criticism. I also wish to express my appreciation to Professor Ruth Strang, of Columbia University, who read part of the manuscript and made helpful suggestions, and to Professor W. C. McCall, of the University of South Carolina, who gave constructive advice concerning the scope and organization of the book. Mrs. Ann Nappi Petersen rendered efficient assistance in typing the manuscript and checking numerous details.

Finally, I owe an especial especial debt of gratitude to the 380 member institutions of the Bureau and to numerous faculty members of these schools who through their consistent use of tests and cumulative records in instruction and guidance are translating into action the basic ideas I have tried to set forth in this book.

Arthur E. Traxler

*New York City*
*January, 1945*

# *Foreword to the Revised Edition*

When the first edition of this book was published in the spring of 1945, the great holocaust of the second world war was just drawing to a close. For about five years in the United States, and for a longer period in nearly all the rest of the civilized world, there had been a kind of moratorium upon educational progress except for those aspects related to the science and technology of mass destruction. In the field of educational measurement, the development of instruments and techniques was practically at a standstill, although some of the work in testing in the Armed Forces probably contributed to later advances in the field of education. In educational guidance, nearly all programs had been frozen at their prewar level, or had retrogressed. It was as though a motion picture projector had become jammed, and what should have been a kaleidoscopic scene was only a series of stills, at each of which one could take a long look.

Regrettable as that situation was, it simplified the job of writing a book dealing with guidance techniques. One could sift from the available materials and techniques almost everything which seemed to have much merit, and could report upon many of these with a confidence born of intimate and detailed experience. Moreover, one could at that time state what he believed to be basic principles with considerable assurance that they would be accepted by most of his colleagues in the guidance area. Guidance philosophy seemed less complicated and confused then than it is today.

During the intervening twelve years, test development activities have gone into high gear once more, and guidance programs have been undertaken in a variety of forms by numerous schools which had no such activities previously. Also, several different professional groups, such as clinical psychologists, psychotherapists, and proponents of sociometry, have become much more active in guidance than they formerly were. The points of view of some of the groups now impinging on the guidance area tend to differ widely. Hence, the present guidance scene is a rapidly changing and somewhat indistinct one. What is said in any thorough coverage of guidance techniques today will not be entirely true of these techniques tomorrow, and to one of a different school of thought it may not even be true of present techniques.

For one of the basic tenets growing out of modern physical science, and impinging upon thinking in all disciplines, is that nothing is wholly objective. What seems to be completely objective is actually a relationship and an interaction between the observer and the observed. We perceive and interpret according to our own predispositions. So it is with observation of the guidance process as with everything else.

Out of both inclination and training, my own approach to guidance services tends to be scientific rather than intuitive. Even though I recognize that there is an element of error in all measurement and observation, I am predisposed to formulate a hypothesis, gather data about an individual or a group, test the hypothesis, and evaluate the results. So this book is written from that viewpoint. But it is, at the same time, influenced to some degree—a greater degree, I think, than was the previous edition—by the contributions made to the guidance field by clinical psychology, psychotherapy, projective techniques, and group dynamics.

Young people going through college and graduate courses and entering upon the practice of guidance today are likely to have some difficulty in reconciling the many viewpoints as to what constitutes desirable guidance procedure. Teachers who are obtaining in-service training in counseling may encounter similar difficulty. As I have tried to suggest in Chapter XIX, as well as elsewhere in the book, the differences may be partly resolved, and a good deal of help obtained, through looking upon guidance and conseling as a learning process, governed by universal laws of learning. I believe that a first-rate teacher who really knows what he is about is very likely to make a good counselor when he has learned the techniques and tools of the field.

The present book is a rather thoroughgoing revision of the 1945 book. The general organization has been retained, but three new chapters have been added. Most of the other chapters have been fairly extensively rewritten, and hundreds of recent references have been consulted and cited. The three new chapters are Chapter II, "Essentials in Launching a Guidance Program," Chapter XIX, "Counseling as a Learning Function," and Chapter XX, "Group Work in Guidance." The chapters most directly concerned with tests, Chapters V, VI, and VII, have been rewritten, for these chapters include thousands of details about tests which had to be brought up to date. Chapter III of the present book, "Opportunities for Young People," which was the weakest chapter in the original book, has been greatly expanded and, I hope, improved. Most of the other chapters have been extensively revised. Fewer changes were made in Chapters I, IX, X, XI, XII, XV, and XVI, since those chapters are mainly concerned with general principles and practices of measurement, record keeping, case studies, and teacher guidance, which do not change with the passage of time as detailed techniques do. Chapter XXI, on reading resources, was completely rewritten.

The work of revising the book required as much time as I could spare from my other duties during a period of about two years. Throughout this period, my secretary, Marguerite McCarthy Vecchione, served more as a collaborator in the preparation of the manuscript than simply as a secretary. She not only typed and retyped the manuscript, merging what was new with what was retained, but she

also assumed the burden of checking the accuracy of numerous statements, including more then 10,000 details by actual count. Without Mrs. Vecchione's help there would have been no revision of the book.

As indicated in the foreword to the first edition, this book in a sense grows out of the testing and guidance programs of the institutional members of the Educational Records Bureau. Many of these have carried on annual fall and spring school-wide testing programs for more than a quarter of a century. During the period between the two editions, the number of Bureau member schools increased more than 75 percent—from about 380 schools to approximately 675—and most of the newer members are likewise carrying on regular measurement programs as one of the main bases of their guidance services. I want to acknowledge once more my debt of gratitude to the member schools of the Bureau for continuing to demonstrate that pupil guidance and the individualization of instruction can and should have a factual and scientific basis.

I am, as I have been ever since I joined the Bureau staff twenty years ago, grateful for the unfailingly wise and sympathetic counsel of my good friends, Dr. and Mrs. Ben D. Wood, who, more than any others, have been responsible for the building and maintaining of this organization. In the final production of this manuscript, I have had the invaluable editorial help and advice of my colleague, Dr. Robert D. North, assistant director of the Bureau. Helpful suggestions were likewise received from Dr. Robert Jacobs, formerly a member of the Bureau staff and presently serving in the International Cooperative Administration, Bangkok, Thailand. I am also deeply in the debt of Dr. H. H. Remmers, editor of this series, who persuaded me to do the book in the first place, who has repeatedly "needled" me to get the revision done, and who gave extremely helpful editorial counsel when at long last I turned the manuscript over to him.

Finally, it was the understanding attitude and sympathetic interest of my wife, Bobby Traxler, which made it possible for me to find the time and energy to do this job.

ARTHUR E. TRAXLER

*New York City*
*January, 1957*

# TECHNIQUES OF GUIDANCE

CHAPTER I

# *Background and Orientation*

The terms "guidance services," "counseling," and "personnel work" were rarely, if ever, used in a school setting at the beginning of the twentieth century. Since about 1910, however, these terms have gradually found their way into common usage until they have become a part of the basic vocabulary of education. The rapid development of guidance in schools of the United States has been due mainly to new social conditions and needs, a new psychology which has emphasized individual differences, new techniques for studying individuals, and an expanded concept of the function of the school as a social institution.

Psychologically, a need for guidance is found wherever the environment is sufficiently complex to permit a variety of responses and whenever individuals are not equipped to react instinctively to the stimulus of the environment. Among animals and in primitive social orders, the guidance of youth is taken care of by the parents. Even in a fairly advanced civilization which maintains a certain homogeneity, the home can continue to be the chief guidance agency. Thus, in the largely agrarian society which obtained in the United States until approximately 1900, there was no keenly felt need for organized guidance other than that provided by the family.

It is unnecessary to point out that within the last half century our environment has become exceedingly complex. The astonishing development of pure and applied science and the mechanization of industry have led to minute vocational specialization and an infinite number of vocational choices. The growth of huge industries and the pyramiding of the financial structure have led to dense concentration of the population in certain areas and to attendant sociological problems pertinent to all age levels but particularly to youth. The close proximity in which people dwell, the speed of travel, the impact of new means of communication, the greatly increased amount of leisure time which new inventions and modern living have brought—all these have contributed to an alarming rise in juvenile delinquency which has become a major concern of the entire nation. We seek to meet the situation, which on occasion seems to assume the character of a crisis, by enlisting the help of all our social institutions, including especially the schools.

The attempt of the schools to keep pace with the growing need for social and industrial education, and, at the same time, to promote that kind of liberal education conducive to the development of stable personal qualities, has so expanded the curriculum that the pupil is presented with a bewildering array of subject choices, frequently with little or no information concerning those for which he is best fitted. The needs for guidance created by these comparatively new conditions have been greatly intensified by the circumstances attendant upon three successive shooting wars and a cold war of indeterminate duration.

At the same time, the changing environmental conditions have placed much greater responsibility upon young people for making wise choices and have allowed them less margin for error. Educational and psychological agencies have become aware of large differences among individuals in their potentialities for success in different areas. The application of measurement techniques and statistical methods has indicated that individuals tend to distribute themselves widely on almost every measurable characteristic and that, in many instances, although not in all, the distributions assume the appearance of the normal, or bell-shaped, curve.

A complex environment and an awareness of individual differences make an attempt at guidance in the schools inevitable. Such an attempt would be characterized largely by trial and error were it not for the fact that techniques of measurement and the recording of observations have laid the basis for an applied science of guidance. The main purpose of this book is to try to provide a description and illustration of the application of this comparatively new science to the problems of youth.

It is true, of course, that schools have always provided some type of guidance for their pupils even though they

may not have used the word guidance at all. The very routine of enrolling pupils, holding classes, and carrying on the work of instruction makes it inevitable that pupils will be guided to some extent. In the past, however, schools have infrequently taken full advantage of their opportunity for guidance because they have not clearly recognized their responsibility in this respect and because they have often been more concerned over the details of the curriculum than over the distribution and adjustment of young people to the school environment and to the broader environment of postschool life. Until recently, the guidance afforded by most schools has not been based on an organized, well-planned program but has been left largely to the individual initiative of the principal and the teachers.

Systems of planned, organized guidance began to appear in the schools of the United States about 1910. So rapidly has the movement grown that at the present time nearly all the more forward-looking high schools and many of the elementary schools attempt to provide some kind of individual guidance for their pupils. Of necessity, schools also attempt to reduce the counseling load by means of group guidance procedures in those situations where such procedures are applicable.

## MEANING OF GUIDANCE

Guidance is one of the most difficult of all educational subjects to discuss because of the past and continuing confusion and uncertainty concerning its nature and functions. Some authorities feel that guidance is as broad as all education and that the whole program of the school should be set up for guidance purposes, whereas others would restrict it to some relatively narrow aspect such as vocational guidance or moral guidance. Some guidance programs consist chiefly of courses in occupational information. The main emphasis in other guidance programs is on the placement of pupils in courses in such a manner as to eliminate or reduce failure. Still others stress therapy and the treatment of maladjustment as the central purpose of the counseling relationship. Not infrequently, character building is thought to be the main purpose and function of guidance. Too often, one fears, the guidance programs of schools consist of little more than lip service to a nebulous concept which is useful in the publicity relations of the school but which has almost no influence on the lives of the individual pupils. Fortunately, the last statement is less widely applicable than it was 20 years ago, or even ten years ago, but it still correctly characterizes the practice of guidance in too many schools.

Not only is there lack of agreement concerning guidance in its totality, but there is also misapprehension with regard to the main divisions of the guidance field. Notwithstanding the critical attitude maintained for years by various authorities on guidance, there continues to flourish a popular misconception that there is a logical cleavage between educational guidance and vocational guidance and between these two and guidance concerned with adjustment problems. It should be clearly understood that all three are inextricably interwoven and that, while there may be differences in emphasis on one or another of these aspects at various grade levels, no realist will try to separate them.

The division of guidance into adjustment and distribution as advised years ago by Koos and Kefauver (*11*) [1] and others is a much more pertinent distinction, but even in this case the division is one for convenience in thinking rather than one that can be applied functionally. In working with individual cases, counselors often find that the key to adjustment is better distribution of the pupils to the offerings of the school. Or, conversely, they find that the resolution of adjustment problems removes blocks to learning and facilitates placement of "problem" pupils in regular class groups.

In the practice of guidance, the whole process is as unitary as the lives of the individuals with which it deals. No school can successfully engage in a few selected functions of guidance, for the reason that the personalities of individuals cannot be divided into compartments. Hence no school should attempt a guidance program unless it is willing ultimately to undertake all phases of it. On the other hand, this is not to say that a school unable to launch a full-scale guidance program at the outset should hesitate to begin in a small way if it has plans for gradually improving its services.

Ideally conceived, guidance enables each individual to understand his abilities, interests, and personality traits, to develop them as well as possible, to relate them to his life goals, and finally to reach a state of complete and mature self-guidance as a desirable citizen of a democratic social order. Guidance is thus vitally related to every aspect of the school: the curriculum, the methods of instruction, the supervision of instruction, disciplinary procedures, attendance, problems of scheduling, the extracurriculum, the health and physical fitness program, and home and community relations. This, of course, implies the closest kind of coöperation between guidance functionaries and all the other members of the staff. Although guidance is closely related to all areas of the school, those charged with responsibility for the guidance program cannot be specialists in all these fields. Their functions

[1] The numbers in the parentheses refer to the numbered items in the list of references at the end of the chapter. Item numbers are shown italic; page numbers roman.

are to collect and systematize accurate information about pupils, to provide an individual counseling service coördinated with group instruction relative to certain areas such as vocational exploration, and to carry on a dynamic educational program among their colleagues and the parents that will lead to intelligent use of the information that the guidance department is able to provide.

## INFLUENCES THAT HAVE CREATED GUIDANCE PROGRAMS

The somewhat varied status of guidance in American schools may be traced in part to the diversified nature of the factors which have been influential in the development of guidance programs. The present guidance movement stems mainly from five divergent and highly dissimilar sources. One of the oldest of these is *philanthropy*, or *humanitarianism*, which stresses benevolent regard for the welfare of mankind. The philanthropists or humanitarians look on life and, seeing the many misfits, particularly in the vocations, they say, "People should be guided when they are young so that these maladjustments will not occur. This is a job for the schools." Here was the impelling force which led Frank Parsons, often called the "father of the vocational guidance movement," to launch guidance services through his Vocational Bureau of Boston. Similar motivation was back of the efforts of the High School Teachers Association under the leadership of Eli W. Weaver in New York City, the Consumers League of Philadelphia, the Schmidlapp Fund in Cincinnati, the Civic Club of Chicago, and many others, as attempts at guidance multiplied in cities across the nation during the second decade of this century.

Another old and strong source of the guidance movement is *religion*. The religious man looks upon the world and he sees what he interprets as a constant struggle between the forces of righteousness and those of evil. In turn, he says, "We must get hold of people when they are very young and train them for the good life. We must build character in our youth." And so he looks to the educational system to help him with this task, and rightly so, because it is the school which has the inside track. Nearly every school administrator has, on occasion, felt the relentless pressure of this guidance group.

A third, and more recent, but in some respects similar, guidance source is *mental hygiene*, with its present-day counterpart in *clinical psychology* and *psychiatry*. This school of thought sees in maladjustment a need for mental therapy. According to this point of view, people should learn when they are young to get a correct perspective on their abilities in relation to life goals; to prefer overt, frank, open behavior to retiring, secretive behavior; to understand the significance of sex and to take a rational attitude toward it; to meet their problems squarely rather than to retire into fantasy and other forms of escapism; to avoid infantile fixations detrimental to the development of a set of maturing interests; to evolve gradually from a state of parental dependence to one of self-dependence through demonstrated achievement in fields within their own capacity; and to assume other qualities which characterize a healthy, adult mental and emotional state. Anyone who has ever seen a psychiatrist struggling through an hour interview with a shy, introverted child, seeking to draw him out and to understand the organization of his tight little personality, knows that here is an intricate and sometimes extremely difficult aspect of guidance. There are clinics to care for this type of guidance so far as markedly neurotic individuals are concerned, but even individuals within the normal range also occasionally need guidance in mental hygiene. For the great mass of children this function must be performed by the school; so another guidance force impinges upon the school, one that inevitably implies the employment of specialists to coöperate in meeting this need.

A fourth source of interest in guidance manifests itself so notably through the administrative aspect of the school that we are sometimes misled into thinking that it originates with administrators, when, as a rule, it stems from *social change*. It is unnecessary to dwell upon the familiar fact that during the period between the two world wars technological unemployment, a world-wide depression, rising ethical standards with respect to child labor, compulsory attendance laws, and similar forces drove into the secondary schools thousands of young people who had no marked desire to be there, had no clear idea of why they were there or what they expected to get from their secondary school training, and did not know where they were going when they were to leave school. The pressure of numbers and the essentially nonacademic character of these pupils created a whole set of new problems for administrators.

As a natural first step, they greatly broadened the curriculum to provide for this horde of young people, but they soon saw clearly that this was not enough. They found that the outstanding need was individual attention and counseling to help each individual marshal his assets of aptitude and previous training and find his way through the complex school environment and the still more complex environment outside the school to a kind of personal and economic self-dependence and security. The administrator, realizing his inability to cope with the situation single-handed, naturally tried to utilize the counseling resources of his staff, notwithstanding the fact

that the staff often had no previous training for this work and no real knowledge of the pupils as individuals. Thus, from this source, many guidance programs were introduced, some of which turned out to be highly successful but many of which could not function effectively because the teachers were almost as bewildered by the situation as the pupils, and neither teachers nor pupils had any tangible basis on which to begin the personnel work.

During the years since the conditions of the mid-1930's led numerous school administrators to take a cordial and very practical interest in the development of guidance services, our country has gone through the greatest war in history, followed after a brief interval by a war of limited scope, both of which created, temporarily, abnormal demands for the service of young people, either in the Armed Forces or in war-related industries, and gave them an unparalleled breadth of experience. Now we have returned to a kind of uneasy normalcy, and the schools are once more bulging with pupils, with the crest of the tidal wave still to come. The need for guidance, both extensively and intensively, is greater than it ever was.

But, on the whole, our schools are far better able to meet the need now than they were during the first mass attempt at guidance programs prior to World War II, for they have acquired two decades of experience and they have at their disposal many special services not available 20 years ago. The schools with the most advanced personnel programs now exhibit an erudition concerning guidance problems formerly confined mainly to university departments of psychology, and it appears that the schools which have made only average progress with guidance services are now at a stage equal to that of the best ones a quarter of a century ago.

The fifth of the major sources of the guidance movement is one that has usually been identified in our thinking with the measurement movement in education but which, when it is analyzed, is seen to involve a concept much broader than educational measurement alone. Basically, it is the simple yet fundamental thesis that the first duty of the school is to *know its pupils as individuals*. It involves, first, a recognition of the essential dignity and worth of the individual, and, second, a willingness to study him by every means which the resources of the school can command. Those who take this approach to guidance point out that in any large high school it is virtually impossible for any one person to know more than a very few of the pupils well enough even to attempt to provide guidance on the basis of personal acquaintance alone. The solution for this seeming impasse, they insist, is for each school to make a systematic attempt to collect information about each individual and then to pool its essential knowledge year after year. The physical manifestation of this pooling of information is what has come to be known as the cumulative record. Objective tests are the most important instrument yet devised for the collection of data for the cumulative record, but they are by no means the only instrument. Social history records, health records, rating scales, anecdotal records, and other procedures can contribute pertinent information to this record.

Since the early 1940's, a sixth influence has strongly affected guidance work, both in schools and outside them. This influence can hardly be regarded as a source of the guidance movement, but it has tended to revamp guidance philosophy and reshape guidance procedures in many ways. This is the school of *nondirective therapy* under the leadership of Carl R. Rogers. More will be said about the Rogerian influence upon guidance and counseling at a later time. Suffice it to point out here that while it may be questioned whether the guidance program at the school level can or should be strictly nondirective, Rogers and his associates have performed a distinct service in helping to neutralize the highly directive, paternal, authoritarian methods which too often characterized the clumsy efforts at counseling in the earlier stages of guidance in the schools of the United States.

When the guidance movement is seen as resulting from so many influences, there can be little wonder that there has been a good deal of confusion and uncertainity in the guidance field. The concept of the cumulative record and of the systematic collection of information for it by means of regular testing and other procedures was one of the last to develop among the sources contributing to the growth of guidance programs. This has been unfortunate, for it is believed that this aspect of guidance is essential to the successful functioning of all other aspects. The development of a dynamic guidance program in the schools of this country depends, in large measure, upon a realization that we must first of all make personnel work a kind of science, that we must, first, assemble the facts about our students, and then add those overtones of personal relationship and those inspirational qualities which can contribute a great deal provided they are founded on understanding.

Many schools, when planning a guidance program, begin by giving detailed attention to the kind of guidance *organization* that should be adopted. This is of considerable importance, but it is not the matter of first importance. The first duty of those charged with the development of a guidance program is to build a plan that will enable the school to *know its pupils*. As Dr. Ben Wood began urging upon educators many years ago, this is "the major strategy of guidance." Without it, no type of guidance organization can have any important effect upon the

lives of the pupils. With it, a school can achieve considerable success with almost any kind of guidance setup, provided the data are interpreted with the understanding that arises from working with many individuals. It will be desirable, however, to consider briefly the general types of guidance organizations which have been developed in our secondary schools.

## STAFF ORGANIZATION FOR GUIDANCE

The guidance organization and the functionaries by whom guidance is carried on vary greatly from school to school. In numerous small schools the principal is the chief guidance officer. In many fairly large ones the work of guidance is carried on by the assistant principals or dean of girls and dean of boys. In others, homeroom teachers conduct most of the functions of the guidance program under the leadership of either the principal or the director of guidance. In some small schools and a few large ones an attempt is made to utilize all the teachers as guidance functionaries. Some large school systems employ a staff of trained counselors, quite apart from the staff of teachers, to carry on the personnel work. Visiting teachers are an important guidance agency in a number of these large systems. Finally, in a considerable proportion of large and medium-size schools committees on guidance services whose members are specially selected by the principal from the teaching staff carry on the guidance work.

Because of differences in local situations, it would not be advisable to try to recommend the adoption of any one type of guidance organization to the exclusion of all others. Two rather definite trends, however, may be noted. One is the tendency to separate as much as possible the functions of guidance from those of administration. Good administrative officers who perform their tasks with imagination will, of course, always do important guidance work, but experience indicates that the relationships between the pupils and those who are charged with the special responsibility of counseling are likely to be more natural and cordial if the counselors perform no administrative or disciplinary functions. In schools where a major share of the counseling is done by deans of girls and of boys, emphasis should be placed upon the *guidance* functions of deans, and discipline should be a minor part of their work. The well-qualified dean usually considers his most important function that of working with and through teachers, teachers-counselors, homeroom teachers, or whatever type of organization is used to provide a counselor for every student.

The other trend in guidance organization is toward the establishment of a closer relationship between guidance and teaching. It is essential that the guidance director be a person with special training in both personnel work and educational measurement, and to fill this position it may be necessary to go outside the local school system, but many, and in some cases all, of the counselors may be recruited from the regular teaching staff and given opportunities for special study and training to fit them for their new tasks. Teachers have always, of necessity, performed many of the functions of guidance; consequently, every experienced teacher has already had some experience in this field even though he may never have considered his work in that light. Not every teacher will make a good guidance officer. Some authorities, in fact, go so far as to say that a school is fortunate if one-fourth of its teachers can be trained for guidance work, but nearly all of them agree that a school's own staff is an important source of counselors. Even the teachers who do not have direct responsibility for counseling can contribute a great deal to the guidance program of a school. All the teachers should be instructed in the guidance philosophy of the school and in the use of guidance records.

If a school adopts a policy of drawing all or nearly all its counselors from its teaching staff, one important question still remains to be decided. Shall the counselors be withdrawn from teaching entirely (except perhaps for the giving of orientation courses in occupations) and their places on the teaching staff filled by new appointees, or shall the guidance work be spread as widely as possible and each counselor retain perhaps four-fifths of his former teaching load? There are advantages to both plans and successful programs of both types are in operation. If the counselors give all or nearly all their time to personnel work, their interests will center in it and they will not have their loyalty and effort divided between guidance and teaching. On the other hand, if they continue to teach, it is possible to arrange the pupils' programs so that the counselors have in class those pupils who are in their own guidance group, and thus close acquaintance and mutual confidence between pupils and counselors is fostered.

Perhaps the strongest argument for favoring close relationship between counseling and teaching is that in both it is necessary first of all to know each individual pupil before the objectives can be realized. Thus the initial stages of both individual guidance and the individualization of instruction are almost identical, and therefore it seems economical and efficient to have the same functionaries engage in both types of activity.

A graphic representation of lines of relationship in a guidance program which was organized on the basis of

a committee on guidance services, consisting of 25 classroom teachers under the chairmanship of a specialist in guidance and testing, is shown in Figure 1. It will be observed that in this plan the lines of consultation and guidance are carefully differentiated from those of administration.

The foregoing plan is suitable for small and medium-size high schools. A more complex plan of organization is, of course, required for the guidance services of an entire city school system. One kind of organization is shown in Figure 2.

## COSTS OF GUIDANCE

Most school administrators will agree that the essentials of guidance—namely, a staff trained in counseling and in the interpretation and use of guidance data, a comprehensive testing program, a cumulative record system, and a library containing information on educational and vocational opportunities—are fine in theory, but frequently they will feel that these are not possible in so far as their own school is concerned because of the expense involved. The question of cost is, therefore, one of the most crucial that can be raised about guidance.

In a survey of the amount of money spent for guidance services in the Metropolitan Boston area, Emery (5) obtained replies from public schools in 16 of 25 cities and towns. The per pupil cost of guidance services ranged from $2.06 to $15.74, with an average of $6.31. There was little relationship between the cost per pupil and the size of the student population served, but, in general, it was found that the smaller the population the greater the cost. The percentage of the total school budget which went for guidance services ranged from 0.31 to 3.40 percent, with an average of 1.64 percent. An interesting inference from this study was that guidance directors were willing and able to provide information about costs, a finding which should stimulate much needed studies along this line.

The costs of guidance may be grouped under four main headings: (1) personnel, (2) clerical services for the maintenance of records, (3) testing programs, and (4) informational materials. There is a fifth kind of cost resulting from the physical requirements for counseling and other aspects of the guidance program, but frequently these requirements can be met through more efficient use of available space without actual additional financial outlay.

The cost of *guidance personnel* is likely to be much the largest item of expense. However, this cost varies greatly in different schools depending on the plan adopted. At one extreme, there are schools in which the salary of a counselor for every 200 or 300 pupils is added to the budget, as well as that of a director of guidance. At the other extreme, there are schools in

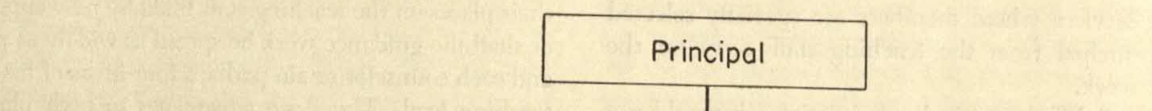



**FIGURE 1.**

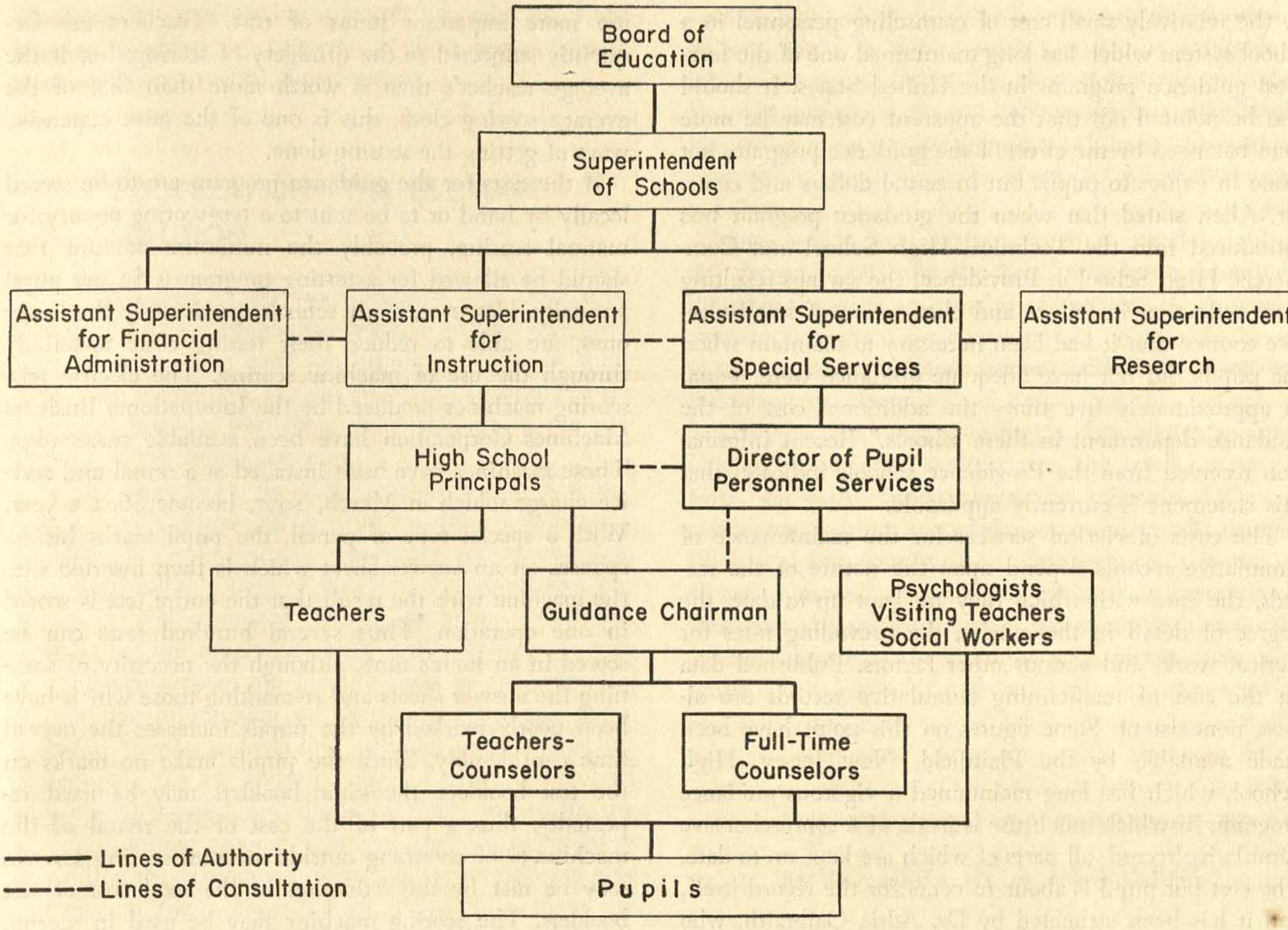



**FIGURE 2.**

which nothing is added for personnel because the work of guidance is absorbed by the existing staff. In the first group, the cost of guidance is probably greater than it needs to be; in the second, guidance usually suffers because of the rigorous economy, for the guidance program is likely to start without the full approval of the staff and to be conducted in a desultory manner because it represents an added burden for each teacher.

The guidance program in the Providence Public Schools seems to have met the problem of cost of personnel with unusual success. In 1938, the late Richard D. Allen, who was assistant superintendent in charge of guidance at Providence, published an article on the costs of guidance based on the experience of his school system (1). Although the detailed costs have increased greatly since the article was written, the essentials of the plan have stood the test of time and are still in use. In that school system, the group guidance instruction (including occupational information) has a recognized standing in the curriculum. Each counselor gives three-fifths of his time to group guidance instruction, one-fifth to other subject instruction, and one-fifth to individual interviews with pupils. Since the four-fifths of his time that is devoted to instruction would have to be taken over by the teaching staff even if the guidance program were discontinued, it is felt at Providence that the only cost for guidance personnel is the one-fifth of each counselor's time that is given to interviews—the interviews being so scheduled that the counselor regularly has one conference of approximately 15 minutes' duration each term with each pupil in his group. At Providence, the annual cost of replacing, through the employment of new teachers, the time that is taken from instruction and given to individual interviews is approximately $2.50 per pupil; that is, it is necessary to add one beginning teacher at a salary of $3000 a year for approximately every 1200 pupils interviewed by the counselors. If it were impossible to afford new teachers, it is estimated that the cost of interviewing could be absorbed by adding one pupil to each class in the school.

Admitting that this plan may involve some costs which do not appear on the surface, one must still be impressed

by the relatively small cost of counseling personnel in a school system which has long maintained one of the foremost guidance programs in the United States. It should also be pointed out that the apparent cost may be more than balanced by the effect of the guidance program, not alone in values to pupils but in actual dollars and cents. Dr. Allen stated that when the guidance program was introduced into the Technical High School and Commercial High School in Providence, the savings resulting from reduction in failure and elimination of small elective courses that it had been necessary to maintain when the pupils did not have adequate guidance were "equal to approximately five times the additional cost of the guidance department in these schools." Recent information received from the Providence schools indicates that this statement is currently applicable.

The costs of *clerical services* for the maintenance of cumulative records depend upon the nature of the records, the care with which they are kept up to date, the degree of detail in the entries, the prevailing rates for clerical work, and various other factors. Published data on the cost of maintaining cumulative records are almost nonexistent. Some figures on this point have been made available by the Plainfield, New Jersey, High School, which has long maintained a vigorous guidance program, in which much use is made of a comprehensive cumulative record, all parts of which are kept up to date. The cost per pupil is about 10 cents for the record itself, and it has been estimated by Dr. Adria Galbraith, who is in charge of tests and records at Plainfield, that the per pupil cost of servicing the record is approximately 50 cents a year, making a total cost of $2.10 for the four high school years. It is doubtful that this amount could be invested in the education of the pupil in any other way to yield such high returns in increased educational efficiency.

The *testing program* is one of the main elements in the cost of guidance. As will be indicated in greater detail later, the basic program should consist of at least five tests annually—a test of academic aptitude or reading in alternate years, and achievement tests in English and at least three of several other fields, such as mathematics, science, social studies, foreign languages, commercial subjects, fine arts, and practical arts—depending upon what the pupil is studying. The annual cost of five test booklets for each pupil would be about 60 cents, but this cost can be reduced materially through repeated use of the same test booklets along with separate answer sheets on which the pupils record their responses. The average cost of the answer sheets is about 3 cents each.

The cost of the test materials is usually the smallest part of the expense of a testing program. Under most conditions, the scoring and the necessary statistical work are more important items of cost. Teachers are frequently subjected to the drudgery of scoring, but if the average teacher's time is worth more than that of the average scoring clerk, this is one of the most expensive ways of getting the scoring done.

If the tests for the guidance program are to be scored locally by hand or to be sent to a test-scoring agency for manual scoring, probably the minimum amount that should be allowed for a testing program is $2 per pupil annually. However, many schools, particularly the larger ones, are able to reduce their testing costs materially through the use of machine scoring. The electric test-scoring machines produced by the International Business Machines Corporation have been available since 1935. These machines have been installed at a rental and service charge which in March, 1957, became $600 a year. With a special type of pencil, the pupil marks his responses on an answer sheet which is then inserted into the machine with the result that the entire test is scored in one operation. Thus several hundred tests can be scored in an hour's time, although the necessity of scanning the answer sheets and re-marking those which have been poorly marked by the pupils increases the overall time considerably. Since the pupils make no marks on the test booklets, the same booklets may be used repeatedly; thus a part of the cost of the rental of the machine or of obtaining outside machine-scoring services may be met by the reduction in the total cost of test booklets. The scoring machine may be used in scoring teacher-made tests, as well as standarized tests.

The electric test-scoring machine of the kind first produced by IBM has contributed greatly to educational and psychological measurement and indirectly to guidance services. This machine, however, is now somewhat outdated by developments in the field of electronics. A very large, high-speed test-scoring machine, which will perform simultaneously many other operations needed in the treatment of test data before they are ready for use in guidance has been produced under the direction of Dr. E. F. Lindquist at the State University of Iowa. Work is currently being done on the design of a new IBM machine which, it is anticipated, will offer marked improvements in speed and efficiency over the electric test-scoring machine which has been the pioneer in this field for some 20 years. A more extensive discussion of developments in machine scoring will be found in Chapter X.

It is obvious, of course, that only a fairly large school system can afford to maintain a test-scoring machine such as the IBM machine for its own exclusive use, but it is feasible for a number of medium-size school systems in the same locality to coöperate in the use of a scoring machine in connection with their guidance programs.

The possibilities of solving some of the problems of testing and guidance by coöperative effort are sufficiently great to deserve special consideration.

## COÖPERATION—THE ULTIMATE SOLUTION

Needless to say, measurement and cumulative records will not in themselves insure a worth-while guidance program. The most important elements in guidance, as in instruction, are the quality and training of the personnel involved and their understanding of the psychology of the individual pupil.

At the same time, the thesis is now widely accepted that a vitally important instrument for implementing guidance is an individual cumulative record and that an indispensable source of data for the cumulative record is a well-organized testing program. Numerous schools that are otherwise fairly well prepared to carry on guidance services are notably weak in the obtaining of objective information on their pupils through measurement. Inertia, unfavorable attitudes toward objective procedures, lack of understanding of what is involved and how to proceed, and doubt of ability to pay for the minimum testing program that any specialist in guidance is willing to recommend seem almost insurmountable obstacles to the average school. Apparently these obstacles can be met in only one way—through the coöperation of the schools in each locality working under the leadership of those who are conversant with both measurement and personnel work.

The first essential is to place a testing program within the reach of all schools. For this purpose, the state seems to be the logical unit as far as public schools are concerned. According to replies to a questionnaire submitted in 1954, twenty-six states now have statewide testing programs. These range in scope from elaborate programs, such as the one in Iowa, which includes the construction of an extensive battery of tests, as well as the scoring of the tests and the reporting of results, to programs that consist of little more than the recommendation of a uniform set of tests throughout the state which may be used in establishing statewide norms. Among the largest and most thoroughly planned programs, in addition to the one in Iowa, are those of Ohio, New York, Tennessee, Connecticut, Minnesota, Illinois, Virginia, and Wisconsin.[2]

[2] Arthur E. Traxler, "The Status of Statewide Testing Programs," *1954 Achievement Testing Program in Independent Schools and Supplementary Studies*, pp. 86–92. Educational Records Bulletin No. 63. New York: Educational Records Bureau, July 1954. Pp. xii + 96.

It is highly desirable for all public schools located in regions where a state testing program is available to take advantage of the testing services of their own state. For schools that do not yet have access to a state testing program, certain service agencies, such as the Educational Records Bureau, make scoring services available at nominal costs.

States which have testing programs need to go one step beyond providing the best possible machinery for the administration and scoring of the tests. They need to conduct a program for educating the schools in the use of the results for guidance purposes. The lack of information about the proper uses of tests is probably the greatest weakness in the average testing and guidance program. Gradually, however, materials on the use of tests prepared especially for teachers and counselors who are not highly trained in statistics are being made available by various organizations (12). It is believed that the use of such materials in preparing the staff to carry on the functions of guidance should be as much a part of a testing program as the administration of the tests themselves.

## THE RELATION OF GUIDANCE TO EDUCATION IN A DEMOCRACY

It has been pointed out many times that individuals cannot be trained for life in a democratic state merely by rules and indoctrination or by the establishment of emotional loyalty. The only effective training for citizenship in a democracy is practice in democratic living. The facts concerning each individual's potentialities, his interests, the things to which he responds with emotional satisfaction, his skills, his rate of development, and his major points of strength and weakness must be accurately ascertained and assembled as objectively and dispassionately as possible, and out of the whole picture he must be led to evolve for himself a satisfactory level of living and at the same time maintain a balance between his own welfare and that of the group. Thus training for living in a democracy and guidance as exemplified by carefully organized personnel programs are one and the same process.

The point will bear repeating that guidance as defined by those who approach the problem rationally implies, first of all, recognition and understanding of the individual and creation of conditions that will enable each individual to develop his fullest capacities and ultimately to achieve the maximum possible self-guidance and security both economically and socially. This concept of

guidance epitomizes our democratic philosophy. It is as enduring as democracy itself, for basically it is democracy applied to the life of the school.

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CHAPTER II

# *Essentials in Launching a Guidance Program*

CAREFUL PLANNING IN THE INITIAL STAGES CAN do much to insure the success of a guidance program. The following questions are some of those which members of a school faculty may ask themselves in order to determine whether or not they are laying a sound foundation that includes the essential elements of guidance services.

1. *Is the guidance program appropriate to the objectives and functions of the local school?* The broad objectives of education in that particular school and community must be identified and must be stated in definite terms rather than based on vague generalizations. This is the only sound starting point for the formulation of a guidance program. For example, there will inevitably be noteworthy differences among the guidance services offered by high schools in a suburban community where the majority of the pupils are college preparatory, in an industrial section of a large city, and in a small, rural community.

2. *Does the guidance program have administrative support?* Not infrequently, members of a school staff who have a friendly interest in boys and girls and are conscious of their needs for counseling will become imbued with enthusiasm for a program of guidance services. In their impatience to see some constructive steps undertaken, they may rush into a hastily conceived plan that is tried out with administrative *consent,* but without the wholehearted approval and strong support of the administration. Greater eventual progress may be made by concentrating in the beginning upon the enlistment of unquestioned administrative support. Among the reasons why there must be full administrative interest in the program from its early stages is the very practical one that new guidance services involve a new financial commitment and that the program requires complete support from the school head in budgetary planning if it is ever to be more than a paper program and an expression of good intentions.

3. *Is faculty attitude favorable to a guidance program?* The converse of the situation suggested in connection with the preceding question is to be observed in some schools. The head of the school is strongly in favor of undertaking guidance services, but his faculty is not ready for this step. At this point we are concerned with *attitudes,* not techniques. It is not to be expected that a school faculty at the outset will be well acquainted with guidance procedures. The question is one of attitude, but it is to be noted that it is not a question of *attitude toward guidance.* The central question has to do with the attitudes of staff members *toward their job* and *toward young people.* Are they even more interested in their students than in the subjects they teach? Do they understand and have they accepted the concept of individualized education—so far as it is possible to individualize instruction under the group conditions of the classroom? If not, it is going to be difficult to lead them to an understanding of what the purposes of a guidance program are. If so, they are already engaged in some aspects of guidance—a guidance program is, in a sense, already under way in the school—and the main problem is one of organization and development of skills and techniques.

4. *Does the school have on its staff specialized guidance personnel; if not, does it have qualified staff members who are able and willing to acquire the necessary special training?* In a large majority of our schools, even today, such guidance as is offered to students is provided by personnel with little or no training for this work. It should be emphasized that it would not be desirable to concentrate the guidance functions in a school entirely in

the hands of special personnel. Schools in general cannot meet the guidance needs of their pupils simply by employing one or two counselors who are expected to handle all the guidance services while the instructional staff continues its traditional role of teaching subject matter.

On the other hand, it is not possible to carry on a modern guidance program simply by using the classroom teachers, and without the leadership of one or more specially trained persons. Procedures of appraising individuals and the provision of counseling appropriate to the individual situation call for a broad background of training in psychology and the use of special skills and techniques.

It is believed that the most desirable guidance situation in a school is one where there is participation by the entire faculty, under the leadership of trained personnel, varying with the size of school from a single psychologist or guidance chairman to a corps of trained specialists. In this connection, it should be kept in mind that the field of guidance services is undergoing growth and rapid improvement and that it is very sensitive to new developments in psychology. The training of specialized guidance personnel in a school should therefore be a continuous process with frequent periods of further study even for staff members who have had a large amount of graduate training.

5. *Has provision been made for the physical equipment needed to carry on a guidance program?* Is there adequate provision for privacy in counseling interviews under reasonably pleasant surroundings? Are offices provided for the use of persons engaged in counseling? Is there a large, suitably equipped office for records, and are the counselors' offices adjacent to it? Is there a convenient filing system for the records? Are tests provided in sufficient quantity and variety for regular testing programs?

If the school building was constructed years ago when no thought was given to guidance services, an attempt should be made to adapt certain rooms for guidance use. A large classroom, for example, can be divided by means of temporary partitions into a number of small offices for counseling purposes. A portion of the room can be fashioned into an outer office for records, or an adjoining room can perhaps be used for this procedure.

When a new school building is constructed, careful attention should be given to plans for the guidance services. A desirable plan is to have a series of rooms arranged in such a way that the records office is between the principal's office and the small offices used for counseling, with each of these units readily accessible from the corridor. Through careful planning and detailed attention to the physical setup, much can be done to promote efficient functioning of the guidance program.

6. *Does the school have a comprehensive, well-organized cumulative record, and are the records kept up to date by trained clerical workers?* A cumulative record will not insure a successful guidance program, but it is next to impossible to provide dependable guidance services without this kind of record for each pupil in the school. The topic of cumulative records is dealt with extensively and in detail in Chapter XIII.

7. *Has the school developed systematic procedures for the objective appraisal of individual pupils?* There is almost universal recognition of the need for appraisal of individuals in connection with programs of guidance. But the way to get started with a program of evaluation is often unclear. It is not an uncommon experience for a test service organization to receive a request from a school worded somewhat as follows: "We have decided to start a guidance program. Please send us some guidance tests." Needless to say, this is not the way to begin.

Tests are indispensable instruments in guidance, but they are not the point at which one starts in thinking about the appraisal aspects of guidance. One starts by determining the kinds of objective information that are needed about individuals and then he attempts to decide what kinds of techniques will yield this information.

An analysis will ordinarily show a need for at least the ten kinds of information discussed in Chapter IV. Tests will yield helpful data with regard to all these areas, but it is highly desirable to supplement tests with other approaches, such as anecdotal records, behavior descriptions, projective techniques, and sociometric devices. The need for these less highly structured techniques is especially apparent in connection with the appraisal of interests, personal qualities, and mental health.

It may be made as a definite recommendation that, after the program is well launched, some experimental work be done with anecdotal records, or with some similar system, such as the new Personal and Social Development Program, prepared by John C. Flanagan.[1] The writing of anecdotes by a member of the faculty and the summarization of them is a very time-consuming procedure, and this kind of plan will not work out in every school. But it should be given a trial, for if ways can be found to implement even a modified and simplified anecdotal plan in a school, this plan will constitute a marked step ahead in the potential of the guidance services the school can provide.

The details of the testing program are covered in later chapters. The prime essentials are comprehensiveness, careful planning and regularity of administration, and comparability of the results from year to year.

8. *Does the school use systematic procedures for col-*

[1] John C. Flanagan, *Personal and Social Development Program.* Chicago: Science Research Associates, 1956.

*lecting information concerning educational and vocational opportunities?* Are there well-defined ways of making this information available to students? All students can profit from the availability of guidance services in orienting themselves toward occupations. A proportion of the students, varying from 10 percent or less in some high schools in industrial areas to 90 percent or more in high schools in residential areas and in private secondary schools, need guidance in deciding on attendance at higher institutions. The next chapter in the book is concerned with these questions.

9. *Do the staff members participating in the counseling of individual pupils agree on certain principles of counseling, and do they carefully prepare for their counseling activities with these principles in mind?* Counseling is a professional activity calling for the use of special skills and techniques. The main purposes of counseling are to improve individual adjustment and self-reliance on the part of the counselee. The interview is the central process of counseling.

In recent years, there have been sharp differences of opinion between the proponents of the directive and nondirective approaches to counseling. The present tendency at the school level, and to a considerable extent at the college level as well, is in the direction of "eclectic" counseling; that is, the selection of those aspects of either directive or nondirective counseling that seem appropriate to the specific situation. It is generally agreed that the counselee should take the lead to the limit of his ability and should assume final responsibility for making decisions. It is recognized, on the other hand, that school pupils lack the maturity and experience to enable them to reach decisions concerning techniques to be applied, such as tests, or independently to think through an involved problem frequently having several psychological connotations. The young counselee needs help in assembling and interpreting information about himself, in reaching decisions consistent with the total situation, and in carrying out decisions made.

Constant care should be used to avoid allowing these kinds of assistance to become domination. The counselee's personal integrity and self-esteem should be protected at all times.

The counseling relationship is thus a constantly changing one, depending upon the nature of the problem and the maturity, self-reliance, and personality of the counselee. The basis of effective counseling is counselor-understanding of the individual and his problem. The counselor cannot depend alone upon intuition and flashes of insight to acquire this understanding. Detailed study of the individual's cumulative record and of the circumstances surrounding his immediate problem and careful preparation for each individual interview are essential.

It should be kept in mind that not all counseling deals with problems. The great majority of counselees in the school guidance program are "normal" young people, and many of them may never bring a problem to their counselor. Nevertheless, regularly scheduled interviews with each pupil in the counselor's group, perhaps once a semester, will provide an opportunity for clearing up minor difficulties and will enable the counselor to keep a check on the development of each individual.

10. *Are referral agencies available, and have the services which these agencies can render to the school been explored?* Although the guidance services of the school should be able to handle the majority of the questions and problems of most of the pupils, occasionally counselors and teachers are likely to get beyond their depth in their attempt to diagnose and provide treatment for cases of severe maladjustment or retardation. Some schools will have the needed special personnel on their own staff or will be able to afford such persons, but the great majority must depend on outside services. Public-supported and nonprofit mental health bureaus, psychological service centers, vocational counseling services, and remedial clinics will usually be the main sources of assistance, although the services of reputable psychologists and psychiatrists in private practice may also be utilized. A directory of approved vocational counseling agencies throughout the country has been published by the American Personnel and Guidance Association.[2]

11. *In establishing a guidance program, is a special effort being made in the guidance program to build up mutually helpful relations with other agencies in the community that are particularly concerned with the problems of young people?* A continuous program should be undertaken to keep parents informed about the nature and purposes of the school guidance services and the values to their own children, and to enlist their help in providing information for the individual inventory or cumulative record. Other guidance agencies with which the school may coöperate are to be found in local civic and religious organizations, youth organizations, and social welfare groups. It is also very desirable for the school's guidance officers to develop cordial relations with personnel officers in local industries.

12. *Is there a well-organized plan for following up individuals after they leave the school?* This question is directed toward one of the most vulnerable spots in the entire structure of the guidance services. There is an inconsistency in the fact that many schools are under-

[2] *1956 Directory of Vocational Counseling Agencies,* an approved list prepared by the Committee on Professional Practices of the American Personnel and Guidance Association, Inc. Distributed by American Personnel and Guidance Association, Inc., 1534 O Street, N.W., Washington 5, D.C.

taking guidance programs at considerable added expense without doing the follow-up needed to appraise the worth of the program and to obtain information that may indicate needed improvements. Failure to undertake follow-up is short-sighted in another way also, in that it suggests that a school believes that its responsibility to the individual ceases as soon as his enrollment is terminated.

A follow-up plan should include not graduates alone but all school leavers. In fact, so far as the individual is concerned, it is frequently the nongraduate who especially needs to be followed up and assisted in postschool adjustment.

Studies of school leavers should be carried on at regular intervals. The purposes of these kinds of studies are to obtain facts about the postschool adjustment of graduates and other former pupils, to learn the opinions of former students with regard to the school organization, curriculum, and guidance program, and to identify school leavers who need further services from the school.

Pupils still in the school should be followed up particularly if they have recently been through a period of remedial work or other intensive training. The follow-up is dealt with in greater length in Chapter XVII.

13. *Has the school undertaken a continuous program of education of faculty members in guidance principles and techniques?* This is the most important matter of all. The guidance program is likely to be successful in direct proportion to the extent to which the entire staff is able to participate intelligently in it. Among the procedures that may be used in promoting faculty understanding and participation are a coöperative effort in the preparation and revision of cumulative records, case conferences concerning individual pupils, discussions of test results made definite and practical through the use of various devices including lantern slides, and lectures by outside experts in the special areas related to guidance services, such as psychiatry, social case work, projective techniques, and vocational education. Guidance services, as suggested in an earlier section, should be an all-faculty function, provided the faculty members have sufficient understanding of the elementary principles and techniques of guidance to enable them to take an intelligent and effective part in this work.

*One final question may be raised: do the foregoing questions apply to the elementary school, as well as to the secondary school?* The answer is yes, nearly all these questions can be applied to the elementary school but with less force than they apply to the secondary school. The natural organization of the elementary school is more conducive to effective guidance services than is the secondary school organization. Since in the typical elementary school organization each class group is in charge of a single teacher, there are a close acquaintance and a personal relationship between teacher and individual pupils which readily create an understanding and an atmosphere favorable to informal counseling.

Moreover, elementary school teachers seem, on the whole, to be somewhat more "guidance minded" than secondary school and college teachers. It seems that as one goes farther and farther downward through the grade levels, he finds greater and greater interest in the development of the whole child and less and less interest in the teaching of specific subject matter. When he finally arrives at the kindergarten and preschool level, he finds teachers spending practically all their school time on the all-round development of individual children.

Elementary school teachers do comparatively little talking about guidance service, but they probably enter into guidance activities in connection with their daily teaching more extensively than do teachers at any other level. Nevertheless, they may be expected to do an appreciably better job if they are acquainted with the uses of cumulative records, test results, anecdotal procedures, the psychology of counseling, and the other techniques of a modern guidance program.

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CHAPTER III

# *Opportunities for Young People*

One of the most important functions of guidance is to help bring about better distribution of young people to the offerings of the school, to the opportunities for higher education, and to vocations. In connection with this area, the main responsibilities of counselors are, first, to become familiar with the opportunities for young people and to acquaint them with these opportunities; second, to know the aptitudes, interests, achievements, and personal qualities of individual pupils and to help the pupils understand the significance of test data and other information concerning themselves; and third, to develop a continuous program of individual counseling and group instruction which will lead young people to discover and recognize the opportunities best suited to their potentialities.

## THE NATURE OF OPPORTUNITIES FOR YOUTH

The counselor's program should include provision for the intelligent guidance of individual boys and girls toward the immediate opportunities provided by the school and the community and toward long-time educational and vocational opportunities available after secondary school is finished. The opportunities for any given individual are dependent both upon his environment and upon his aptitudes and personal qualities.

### CURRENT OPPORTUNITIES OF THE SCHOOL

When new pupils enter the secondary school from the elementary grades, either at the end of Grade 6 or the end of Grade 8, a first responsibility of the guidance services is to orient them to the opportunities provided by the high school. This orientation is preferably begun in the last grade of the elementary school through group meetings between the pupils and the counselor to whom they will be assigned in high school. The organization of even a medium-size high school is complex in comparison with that of an elementary school. It saves a good deal of confusion on the part of many pupils if they can be informed in a general way about what to expect before they actually enter high school. It is also very helpful for the counselor to become acquainted with the parents of the prospective secondary school pupils while the pupils are still in the elementary school. Printed booklets containing information about the high school, its organization, customs, and traditions may well be distributed to pupils and their parents at this time.

Group meetings with new pupils at the beginning of the fall term can be used to give them more information concerning the curriculum, the extracurriculum, and the school plant and its equipment. The library facilities, including the card catalog and the other helps to a ready location of study materials, should be carefully explained with the coöperation of the librarian. Group meetings in which study habits and procedures are discussed should be followed by opportunities for individual conferences. The counselor should prepare himself for each pupil conference through a study of the available information about each new pupil. In many places, this information will be comparatively meager, but in school systems where individual cumulative record cards are maintained in the elementary school, as well as at the high school level, the counselor will have ready access to a variety of pertinent and very helpful information.

### THE SECONDARY SCHOOL CURRICULUM

One of the main areas of opportunity within the school is, of course, the curriculum. Throughout the elementary school, pupils are concerned to a large extent with acquisition of a common set of basic skills. Opportunities for choice among subjects are necessarily restricted.

Guidance is needed at the point where choices are presented to a pupil and his parents and where decisions must be made. High schools, of course, vary widely in

the opportunities for choice which they allow. When there is only a single curriculum consisting of constants which all pupils are expected to take, as was true of many schools a half century ago and is true of some small high schools even today, the possibilities of guidance in relation to the curriculum are decidedly limited. But with the many curricula offered in modern metropolitan high schools, or under conditions where there is a curriculum consisting of constants supplemented by a wide choice of variables, there must be a program of careful individual guidance of pupils toward the offerings best suited to them as individuals. Otherwise there will inevitably be a great waste of teacher and pupil effort which will eventuate in many cases of failure and maladjustment and increased costs for school support.

It is true, of course, that even in the most progressive of secondary schools there is not complete freedom of choice. Virtually all high schools require at least three years of English and a year or so of social studies of all pupils, and in most high schools the amount of prescription is considerably greater than that. For college preparatory pupils, in particular, choices are likely to be more limited, since these pupils are still bound to a considerable degree by the requirements of the colleges. Similar circumstances are true of a large borderline group of pupils who are uncertain about ultimate college attendance. Nevertheless, as the requirements for entrance are gradually being liberalized by a growing number of colleges, the opportunities for choice presented to college-bound high school pupils are slowly being increased. In all middle-size and large high schools, all pupils have opportunities for a number of electives. And their decisions with regard to these electives often have much influence upon their future, both educationally and vocationally.

Classroom teachers giving part of their time to counseling are usually well prepared to provide guidance in the area of the curriculum. It is sometimes difficult, however, for them to be completely objective in this kind of guidance and to resist a natural tendency to point up the advantages of their own field of study to the pupil. This is not always unfortunate, for the enthusiasm of a thoroughly dedicated teacher not infrequently transfers itself to his students. Teacher-counselors need to keep in mind, however, that they have an obligation to assure themselves that the pupil has the necessary aptitudes for a field of study before suggesting that he give serious consideration to it.

It should be remembered, too, that the modern trend is not for counselors to decide *for* the individual just how he may use the available information concerning the opportunities open to him and about his own abilities and interests. It is, rather, to place a large amount of responsibility upon the *individual himself* for understanding the information made available to him and for using it in reaching his own decisions so that he may gradually grow into a mature, self-reliant person who finally has little or no need for the services of counselors. Obviously, the application of these procedures must be a reasonable process, adjusted to the maturity of the student, and responsibility must not be placed upon the individual more rapidly than he is able to assume it.

## THE EXTRACURRICULUM

The extracurriculum affords a second area of opportunity for boys and girls of school age. The extracurriculum, which in the early history of the secondary school was very limited in scope, has expanded tremendously during the present century. In all but the smaller schools, there is now such a variety of sports, clubs, and hobbies included in the extracurriculum activities that some aspects of it should appeal to the interests of every normal pupil. School administrators recognizing its educational value are tending to an increasing extent to accord the extracurriculum a place closely parallel to the curriculum itself.

Boys and girls vary greatly in the degree to which they take advantage of the opportunities provided by the extracurriculum. The average pupil takes part in three or four of these activities. At one extreme, there are individuals to whom the extracurriculum is by far the most important aspect of school life and who participate so extensively in extracurriculum activities that there is great interference with the learning process fostered by their regular curriculum. At the other extreme, there are timid, backward, solitary, retiring individuals who do not take part in a single extracurriculum activity unless participation in at least one such activity is a requirement laid down by the school. The pupils at both extremes are greatly in need of guidance leading to a choice of a moderate number of activities best suited to them.

It is through the extracurriculum that many personal problems and difficulties of social adjustment are resolved. The therapeutic values of assimilation with one's own peers in relatively free activity should never be overlooked. As Krugman (55) has pointed out, the social group can often serve as a most effective preventive and therapeutic agent in reaching and helping pupils who may not be reached by even the most skillful psychologist or psychiatrist.

## OPPORTUNITIES IN THE COMMUNITY

The community provides a third area of immediate opportunities for young people. Many of the opportunities afforded by the community are educational, and they may be used to supplement and reinforce the program of the school. In fact, it would be entirely possible

to replace most elements of the school curriculum by a program based on a study of the resources of the community or through a thoroughly planned, long-range project in community living.

Broad contacts with the business life and civic organization of the community, and with the civilizing influences provided by the agencies of literature and art will do much to infuse the curriculum which the pupil pursues in school with real content and meaning. It is known, for example, that pupils read with much better comprehension when they have had first-hand experience with the concepts dealt with in the reading material.

In a rural or small town environment, the young people may be so well acquainted with the community educational resources that little guidance in this area is needed, although even in such an environment the counselors have some functions of this kind to perform, and field trips under the auspices of the guidance services to nearby cities or industrial centers can be handled in a way to provide worth-while educational experience for pupils in the local school. In a complex metropolitan environment, boys and girls are likely to be acquainted with only certain types of community resources which are along the line of their special interests or which are in their own neighborhood, and they need guidance in getting a balanced sampling of the community opportunities.

Part-time work opportunities are also available for a considerable number of pupils of secondary school age, particularly during the periods of recurrent severe manpower shortage occasioned by unstable international conditions, and guidance into these openings is a function of counseling. From a long-term guidance point of view, the chief objective in this type of vocational counseling is not so much to help the student economically as it is to provide him with a background of work experience which will be useful when he is ready to choose a lifetime vocation.

For the placement of pupils in suitable part-time and summer employment, the guidance functionaries of the school may advisedly develop close working relations with personnel managers in all the local business and industrial concerns and with community guidance agencies, even though the major concern of the latter is likely to be the guidance of out-of-school youths and adults.

## OPPORTUNITIES FOR HIGHER EDUCATION AND GUIDANCE TOWARD COLLEGE

Opportunities for young people at the end of secondary school may be classified broadly into those of higher education and those of the vocations. The process of transition from school to college is often thought of as an act or event of considerable abruptness and is frequently treated in the same manner. It is perhaps more properly viewed as a long-term guidance process, one which begins in the elementary school and continues throughout the junior and senior high schools and into the junior college. The thinking of the individual himself, his home and family, and many staff members in his school and his college should be brought to bear cooperatively upon the process.

One of the most important areas of guidance for the college-bound students is *guidance in the choice of a college.* The guidance services have two main functions in this regard—first, providing information concerning colleges, and, second, relating information about abilities and interests of individual pupils to information about the offerings of the colleges.

The replies of college freshmen to a questionnaire distributed in the spring of 1954 by the Committee on School and College Relations of the Educational Records Bureau to a total of nearly 500 freshmen in 27 colleges indicated that a fairly large proportion of these students had experienced difficulty in deciding what college to attend. Twenty-two percent, a little more than one student in five, indicated that insufficient secondary school guidance was a reason for difficulty in choice of college. Approximately one student in six checked lack of sufficient information about colleges as a problem. More than a fourth of the students felt that difficulty in deciding which college to attend was due at least in part to lack of clearly defined vocational objectives. About one student in seven checked lack of clearly defined educational objectives. Financial needs were mentioned by approximately one student in three, a fact which suggests a need for a broader scholarship program in the colleges and better information concerning the availability of scholarships (34).

In providing pupils with information concerning colleges, the counselor needs to make frequent reference to the pattern of abilities of each student, as revealed by his cumulative record. Oftentimes students, and more frequently their parents, set their sights too high or aim in the wrong direction. Judicious use of the objective data on the cumulative record in conference with the person concerned can often bring about a gradual change in aim and the setting of goals consonant with aptitude long before the student reaches the last half of his senior year, where final decisions must be made.

In order to discharge the function of guidance in choice of college adequately, counselors need information on a wide variety of colleges enrolling students of varying ability levels. It is true, of course, that the student and his family may often reject the kind of college in which he could be well adjusted and successful. How-

ever, an understanding of the student's cumulative record and acquaintance with the offerings of many colleges may help in the setting of goals more realistic than those sometimes adhered to in the beginning.

Guidance concerning choice of college is a relatively straightforward, uncomplicated area of counseling, and it would seem that this is an area in which secondary schools could considerably improve their services.

Another important area of counseling of college preparatory pupils, as well as those not intending to go to college, is *guidance in self-dependence, responsibility, and long-term planning*. One fact which looms up very clearly in the replies of the college freshmen to the questionnaire distributed by the Educational Records Bureau is that these students feel a vast difference in the degree of freedom accorded students in secondary schools and colleges. Many of them stated that they had difficulty in adjusting to the much greater amount of freedom they had in planning their activities in college. One-third of the freshmen said they had difficulties in academic adjustment because of inability to organize work and study. Many students attributed this lack of ability to the failure of their high schools to train them to be on their own and to take major responsibility for their own activities.

Among the many statements made by the freshmen on this point, the following quotations are typical: "In high school you can do well if you pay attention in class; in college it is the work you do outside that counts;" "My secondary school could have given me more experience in being independent and in using my own initiative;" "One of the greatest problems of college life has been learning to get along on my own;" "The biggest difference between high school and college is the emphasis on responsibility;" "I have never had to budget my time before and find it hard to do so now;" "The high school has too much control over the individual; the problems are solved for him; he should be set free and allowed to run, at least for the most part, his own life;" "I think the high school should start us thinking for ourselves, seeing the problem, analyzing it, and solving it."

Without question, the change is so abrupt that many students are confused and have difficulty in finding themselves for at least a semester after they enter college. A large proportion of the high school work is in terms of daily assignments, and pupils are given close supervision and held accountable by their teachers for the completion of these assignments. In the typical college course, on the other hand, a large proportion of class time is given over to lectures by the instructors, and assignments are given in large blocks or perhaps for an entire semester, so that ability to plan and organize is a basic factor in success. High school counselors need to inform pupils preparing for college concerning this difference and help prepare them to make the changeover.

This, however, is only a minor part of the need. The entire staff of the high school ought to coöperate in helping students make the gradual transition from the psychology of daily preparation to the psychology of the more mature preparation situation encountered in college. This means that, beginning somewhere in the junior year of high school and developing much more in the senior year, there should be a gradual departure from the daily assignments in favor of the setting up of long-term projects which would help to develop initiative, independence, and organization ability on the part of the students.

At the same time, there is a need for college instructors to recognize that the students from many high schools have had no preparation for the freer study situation and the absence of definite daily assignments in the usual college course, and they ought to take time to help students new in the college over this very difficult hurdle.

Responsibility for managing their own finances also gives some students trouble when they go on from high school to college. In the words of one freshman, "The most disturbing problem has been one of learning to really live on an allowance and budgeting one's own money." Another student suggested that "Proper orientation in budgeting of money should be given." This is a practical problem to which guidance services in secondary schools could well give some attention.

Transition from school to college could be made much smoother through closer coöperation between secondary school and college personnel services. Guidance is a continuous process, or it ought to be, for the development of the individual is a continuous growth process. Counselors at each higher educational level should always be able to build upon what is known about the student—his aptitudes and achievements, his strengths and weaknesses—at the lower levels.

Communication between guidance personnel at the school and college levels needs to be greatly improved. There is at present communication of sorts, but usually it is by way of the administrative office of the high school through the admission office of the college. This kind of communication needs to be supplemented and strengthened by means of direct lines of communication between school and college guidance functionaries.

This kind of communication is easy to suggest but difficult to carry out. A college typically draws its students from many different high schools, and the high school usually sends its graduates to many different colleges. These may be widely separated geographically. Still, much could be done through brief, simple leaflets

distributed by high schools in order to let colleges know the nature of the high school guidance program and through communications from colleges to high schools informing them about the personnel services available to the students the high schools may send them.

A greater degree of uniformity in records and in admission blanks would also be helpful. If a uniform admission blank were to be adopted by schools and colleges throughout the country, it might be possible to include, as a part of such a form, a sheet which would contain guidance data and which would automatically be separated from the rest of the blank and passed along to college guidance personnel for all students admitted to the college.

These general suggestions can be considerably improved upon by schools and colleges in certain regions. Some secondary schools send the majority of their college preparatory graduates to a single college, and some colleges draw most of their students from a small number of high schools. This is true especially in rural areas of the country where a college may be the only one in a certain geographical area and in large cities such as New York City where the municipal college may be the only public college in a particular borough. The guidance officers in these schools and colleges have a favorable opportunity for developing close relationships and for increasing the information of secondary school students concerning the opportunities the college affords by means of talks by college personnel officers to high school pupil groups and through visits of groups of high school juniors and seniors to the college campus. Under the leadership of the local college, an association of guidance functionaries could well be formed for the exchange of information and for mutual assistance.

As guidance workers, we like to see individuals well adjusted and happy. We try to help individuals think their plans through and adjust to their environment. Where individuals cannot meet the requirements of the environment, then sometimes we would like to change the environment. With regard to college entrance, this means that we may tend to favor the relaxing by colleges of some of the traditional entrance requirements and provision for students to pursue a greater variety of objectives after they are admitted to college.

But the needs and desires of the individual must be balanced against the welfare of the social group. It is believed that, in view of the development of more meaningful criteria of admission, colleges ought to abandon narrow standards of time served in high school classes expressed in terms of Carnegie Units, but from the standpoint of our social order, colleges are limited in the degree to which they can and should water down their basic standards of admission. The guidance, selection, and liberal education of the gifted are an inescapable responsibility of secondary and higher education, for it is from this group that most of our leaders come, and it is through the contributions of individuals in this group that most of the social and material progress of our civilization is accomplished.

In fact, the future of our whole civilization may depend on how well this educational task is accomplished by the educational institutions of the nations of the free world. The identification and training of the best minds of the nation may be decisive in the long struggle with communism. The need for improved selection and guidance is great in the natural sciences, but it is even greater in the social sciences, since progress in this area lags greatly behind that in the other sciences.

As the bulge in population during the ensuing years moves out of the elementary school, through the high school, and into college, the rising tide of students threatens to overwhelm the services of the secondary schools and to engulf the colleges (93).

Even though colleges expand their facilities to the maximum, it seems doubtful whether they will be able to continue over a long period to provide a four-year liberal education followed by professional training for the greatly increased number who may desire such advanced training. Much more careful selection than is usual at present will be imperative. The personnel services of secondary schools and colleges need to develop plans and procedures to assure that it is the most able among the young people who will be chosen and given an opportunity for the most advanced and rigorous training of which they are capable. This is a civic, as well as a professional, duty.

## LONG-TERM VOCATIONAL OPPORTUNITIES

Guidance services should, so far as possible, be oriented toward current economic and social conditions and trends. During periods that are relatively stable politically and economically, this is not an extremely difficult requirement, although, even under those conditions, schools too often continue to prepare boys and girls for kinds of adult work and service that are fast becoming obsolete. There are, of course, great basic human needs, which in the long view, make for considerable institutional and occupational stability. But for any generation of young people going through our schools and colleges, the opportunities for satisfactory placement and adjustment in the adult world are determined in considerable measure by world-wide political and economic conditions. In recent years, the task of predicting future industrial and social progress of any kind has been particularly baffling. There probably has never been a time in our history

when young people needed educational and vocational guidance as much as they do now or when it was so difficult to provide any kind of intelligent, long-term guidance for them.

In a world of political and social ferment, and in an increasingly complex vocational setting, what can counselors do to keep informed of developments that have implications for guidance and of the changing opportunities for young people, and how may they make this information available to their counselees?

In the first place, guidance officers should, in a sense, be students of world affairs. On the national scene, particularly, they need to be informed and to help their counselees become informed, not only concerning existing conditions and laws as they affect education and industry, but also about proposed and pending legislation having to do with such matters as Selective Service, provisions for educational aid for personnel returning from the Armed Forces to civilian life,[1] minimum wage laws, and social security provisions. Full information is needed on opportunities for vocational placement through local employment agencies and personnel departments of industrial organizations in the community, and particularly through state employment services.

In the second place, much information may be obtained concerning both educational and vocational opportunities through the maintenance of an up-to-date library of books and handbooks in these fields. Detailed suggestions concerning such reference materials will be found in the next section of this chapter.

In the third place, counselors should be informed about the major occupational groups and the changing demands for workers in these groups. The United States Employment Service has developed a standard classification of occupations based on the kinds of work involved. These seven occupational groups, with their code numbers, as listed in the *Dictionary of Occupational Titles* (24), which is described in the next section of the chapter, are as follows:

| | |
|---|---|
| 0 | professional and managerial occupations |
| 1 | clerical and sales occupations |
| 2 | service occupations |
| 3 | agricultural, fishery, forestry, and kindred occupations |
| 4 & 5 | skilled occupations |
| 6 & 7 | semiskilled occupations |
| 8 & 9 | unskilled occupations |

The influence of labor and trade unions upon entry into and work in the skilled, semiskilled, and unskilled occupations is an area about which both counselors and counselees should be thoroughly informed.

[1] See appendix, "Guidance and Adjustment of Persons Whose Education Has Been Interrupted."

Eleven major occupational groups were listed in connection with the 1950 census, and information on employment in these occupations was given (97). These occupational groups are as follows: (1) professional, technical, and kindred workers; (2) farmers and farm managers; (3) managers, officials, and proprietors, except farm; (4) clerical and kindred workers; (5) sales workers; (6) craftsmen, foremen, and kindred workers; (7) operatives and kindred workers; (8) private household workers; (9) service workers, except private household; (10) farm laborers and foremen; (11) laborers, except farm and mine.

When one is considering a specific occupation, he naturally desires information concerning both the nature and conditions of the work in the occupation. In addition, the counselor should assist him in obtaining a number of other kinds of information among which the following are important: (1) the mental abilities required in the occupation as compared with the measured abilities of the individual; (2) the extent and kind of general and special education required for entrance into the occupation; (3) requirements for certification to work in the occupation, such as examinations; (4) the long-term trend of employment in the occupation and the extent to which it is sensitive to changes in general economic conditions; (5) average income, range of income, and security afforded by the occupation; (6) possible restrictions on or difficulties of entering the occupation as related to the sex, background, and personal qualities of the individual; and (7) the status and value of the occupation in the social order.

In addition to the provision of pertinent information concerning vocational opportunities, it is a function of guidance services to assess the aptitudes and interests of each pupil and to attempt to see that each pupil develops some fairly broad ability while he is still in school. Various groupings of aptitudes are inherent in several of the aptitude test batteries, some of which are based on factorial analysis and others of which are derived from logical classifications of aptitude. The Differential Aptitude Tests, a widely used aptitude test battery in junior and senior high schools, use the following grouping of aptitudes: verbal reasoning, numerical ability, abstract reasoning, space relations, mechanical reasoning, clerical speed and accuracy, and language usage (25). A classification of occupational interests into broad groups, as indicated by the Kuder Preference Record—Vocational, is as follows: outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical (56). It will be observed that, although these classifications are not identical, they are similar in that both sets are pertinent to broad areas instead of being narrowly vocational. This distinction is important at the school level.

The development of pupil aptitudes should be in the nature of a set of abilities basic to work in a large field, not merely an occupational trick. The broader the basis of preparation, the better one's chances of vocational adjustment. The abilities to be especially stressed in the education of each individual depend upon an inventory of the potentialities of the individual himself.

Individual counseling with regard to vocations may be supplemented in a very helpful way with various group activities.[2] Such activities are commonly carried on through vocational exploratory courses and by means of carefully planned discussions in the homeroom. In recent years, a considerable number of schools have adopted the plan of holding an annual career conference. This kind of conference ought to be planned by the faculty and pupils as a group project, and it may well be centered around the major occupational interests of the pupils and pertinent questions raised by them. Outside speakers, including guidance specialists and representatives of different professional and vocational groups, are usually invited to participate in the career conference.

That a course in job finding and job orientation for high school students pays off in better placement and better satisfaction with jobs is indicated in a report of research carried on by Cuony and Hoppock (22).

## SOURCES OF INFORMATION ABOUT OPPORTUNITIES

Counselors, as well as pupils, need to be instructed concerning the opportunities available to young people. The counselor's information about opportunities afforded by the school will be obtained mainly through reading school catalogs, detailed study of course outlines, conferences with faculty members, and a careful survey of the entire school plant. The counselor not only should become thoroughly informed about all aspects of the opportunities which the school provides, but also should be alert to inadequacies in the total school program and should use his influence to improve and broaden the opportunities.

### INFORMATION CONCERNING OPPORTUNITIES AFFORDED BY COLLEGES

A common and frequently used source of information concerning the postschool opportunities of college preparatory pupils is, of course, college catalogs. There should be available for use by both counselors and pupils a complete and up-to-date file of the catalogs of all colleges to which the school customarily sends students. Each counselor should try to become familiar with the pertinent guidance information in these catalogs. In particular, counselors should be alert to new and helpful statements that appear from time to time in college catalogs. These reflect changes in concepts of what the requirements for entrance to college ought to be and of what constitutes the characteristics of a well-prepared applicant. For instance, among the items in a questionnaire which the Committee on School and College Relations of the Educational Records Bureau submitted to colleges in 1949, the following question appeared: "In order to help the schools to give better preparation, are you willing to state in the catalog that certain habits, skills, and other qualities are of great importance to successful college work? Examples: ability to use a library effectively, to write a well-organized report, to profit from a lecture, and the like." Seventy-eight percent, or nearly four-fifths, of the colleges answered the question affirmatively. Needless to say, this kind of statement would be a new departure for many colleges.

As the number of applicants to college increases and as difficulties of entrance to highly selective colleges increase, those secondary schools which formerly considered sending their graduates to only a small list of colleges ought to extend their contacts and become acquainted with the opportunities afforded by a wider variety of colleges. Students who show interest in colleges other than those to which the graduates of the local secondary school traditionally go should be encouraged to write to the other colleges for catalogs and other information, and the counselor should help them obtain and study this information. This suggestion applies especially to eastern independent or private schools which have long tended to be insular in their contacts with, and understanding of, colleges.

Books and handbooks providing general information and descriptive listings of colleges and universities constitute a second kind of source of information about opportunities in higher education. Among these are *The College Handbook,* issued every two years by the College Entrance Examination Board (53); *A Guide to Colleges, Universities, and Professional Schools in the United States,* edited by Good (39); *American Universities and Colleges* (7th ed.), edited by Mary Irwin (51); *American Junior Colleges* (4th ed.), edited by Bogue (12); and *Lovejoy's College Guide* (60). *The College Handbook* contains extensive information concerning the member institutions of the College Board, including descriptions of the colleges, accreditation, programs of study, expenses, and financial aid, including scholarships. The book edited by Good, *A Guide to Colleges, Universities, and Profes-*

[2] Group activities are listed at greater length in Chapter XX.

*sional Schools in the United States*, was issued in 1945 as a reference work for educational officers concerned with the guidance of veterans of World War II. It provides detailed checking for some 1700 higher institutions of numerous items under the general headings of Type of Institution, Calendar, Admission of Veterans, Advanced Standing for Veterans, Special Instruction for Veterans, Curricula, Programs, Costs, Health Service, Housing Arrangements, Vocational Advisory Service, Student Aid, Physical Education and Recreation, and Special Rules and Regulations. It was published by the American Council on Education. *American Universities and Colleges* and *American Junior Colleges* are two more recent publications of the Council. These two books, taken together, make available thorough information on practically every college and junior college in the United States. Sections such as the following appear in the description of each college listed: calendar, requirements, fees, departments and staffs, degrees conferred, ROTC units, recent developments, enrollment, foreign students, special devices, library, publications, student aid, finances, buildings and grounds, and administrative officers.

*Lovejoy's College Guide* is a popular handbook for pupils, parents, counselors, and teachers. The revised edition lists by state and briefly describes more than 2000 colleges and universities in this country. A monthly supplementary service, known as *Lovejoy's College Guide Digest* (61), supplies current information about colleges and furnishes up-to-date corrections of the information given in the *College Guide*. A new book in the Lovejoy series, *Lovejoy's Vocational School Guide: A Handbook of Job Training Opportunities* (62), is an up-to-date directory of more than 6500 public and private vocational schools throughout the United States.

A third kind of helpful information pertinent to the opportunities available to college-bound secondary school students is to be found in various studies of these problems of transition from school to college. Many studies of these problems extending over a long period have been published. The College Entrance Examination Board, for example, has issued such studies throughout its history of more than 50 years (35).

Since about 1935, studies of college admission and placement have greatly multiplied. The extensive Eight-Year Study of the Progressive Education Association (4), carried on during the 1930's and resulting in a five-volume report in the early 1940's, was essentially a study of college admission and adjustment under conditions where students in a selected group of secondary schools were freed from the necessity of meeting conventional college entrance requirements. From 1939 on, studies and reports of transition to and adjustment in college were issued by a large number of individuals, including Hale (44), Pace (74), Fine (29), Mattox (67), Tomlinson (94), MacIntosh (65), Hollinshead (48), Wagner (*101*), Dale (23), and others. In general these studies reveal the persistence of much that is traditional, such as a tendency to cling to the often-questioned Carnegie Unit and continuance of the conventional, required secondary school curriculum, but, at the same time, much which is forward-looking and liberal in attitudes, if not in actual practice, and which should lend encouragement to the guidance workers of the future.

Ever since it was formed, about 1930, the Committee on School and College Relations of the Educational Records Bureau has carried on periodic studies of college admission practices and has made recommendations which have had a strong guidance orientation. One of the recent reports of the committee summarized the responses of more than 600 colleges and over 1300 secondary schools to extensive questionnaires on policies and procedures relating to transfer of students from secondary school to college (95). This report was followed by a questionnaire survey of the adjustment and guidance of freshmen in 27 colleges connected with the Educational Records Bureau. As mentioned earlier in this chapter, the questionnaire was filled out by a sampling of the freshmen themselves in each college, and their comments have many implications for guidance at the secondary school level (34).

Since about 1950, there has been a tendency for individual and committee research efforts in this field to be supplemented by, or perhaps to some degree replaced by, coöperative studies with foundation financial support. The most extensive of these are four studies under the aegis of The Fund for the Advancement of Education (13). The first report was an experiment by three independent secondary schools for boys and three independent universities for men in the development of a coherent plan of general education covering the last two years of secondary school and the first two years of college (37). In the second experiment, able young people who were not more than 16½ years old and who had not yet been graduated from high school were admitted to college, and their records were compared with those of regular high school graduates. In the third experiment, known as the School and College Study of Admission with Advanced Standing, procedures were developed for providing advanced credit for the able student, not through early promotion but through high level courses in secondary schools which will prepare students for entrance to advanced courses in college. The fourth study is concerned with meeting the needs of exceptionally endowed pupils in public schools. Such experiments inevitably imply well-planned and coördinated guidance throughout the secondary school and college years.

## SOURCES OF INFORMATION CONCERNING VOCATIONAL OPPORTUNITIES

Among the many sources of information about vocational opportunities, several are indispensable for the counselor. One of these sources is the *Dictionary of Occupational Titles,* prepared by the United States Employment Service, and first published in four separate books in 1939. Three of these books, known as Volume I: *Definition of Titles;* Volume II: *Occupational Classification and Industry Index;* and Part IV: *Entry Occupational Classification,* are currently available in revised editions (24).

Volume I: *Definition of Titles* contains definitions of more than 22,000 defined jobs and gives approximately 18,000 alternate titles. Volume II: *Occupational Classification and Industry Index* classifies each job with the other jobs to which it is related under seven major groups. Volumes I and II are intended for the classification of applicants who are already fully qualified to perform specific occupations. Part IV: *Entry Occupational Classification* is intended for classification of applicants into kinds of work in which they have not had experience or specific training. This part is of special interest to high school counselors, since it is intended for use in the guidance of young, inexperienced persons. Since such persons have had little or no actual work experience, they cannot be classified on the basis of the job definitions given in the first two volumes of the *Dictionary.* Part IV provides for the classification of inexperienced persons on the basis of their general knowledge, skills, and personal qualities. This part of the *Dictionary* includes about 6000 entry occupations.

Books and monographs about occupations provide a second indispensable source of information for the library of the school counselor. Among books of this kind published since 1950 are Baer and Roeber's *Occupational Information* (7), one of the volumes in the SRA Professional Guidance Series; Forrester's *Methods of Vocational Guidance* (32), a revision of an earlier book under the same title; Greenleaf's *Occupations: A Basic Course for Counselors* (40) and *Occupations and Careers* (42), developed out of extensive experience in the Occupational Information and Guidance Service of the United States Office of Education; Humphreys' *Helping Youth Choose Careers* (49), a simply written pamphlet on career selection; Shartle's *Occupational Information* (84), which is an expansion and revision of an earlier edition by one of the leading authorities on vocational guidance; and *Job Guide for Young Workers* (52), a pamphlet which is published by the Bureau of Employment Security, United States Department of Labor, which contains information concerning a number of possible occupations which may be entered by beginning workers.

A third valuable source of vocational information is to be found in the "Individual Job Descriptions" which are available from the U. S. Government Printing Office, Washington, D.C. (50). These individual occupational descriptions, numbering some 200, were prepared by the Occupational Analysis Branch of the U. S. Employment Service. In each of these descriptions, there is a detailed explanation of the work performed, a statement of the knowledge and skills required, a statement of the physical demands and work conditions, a description of the equipment used, a list of related occupations, and other information.

Booklets and pamphlets prepared by various occupational groups concerning their own fields furnish a growing source of information relative to vocational opportunities. This source of information is particularly pertinent to the professions. These publications tend to be simply and clearly written, for they are usually aimed directly at promising young persons who are potential candidates for the profession in question and their parents. For instance, the American Institute of Accountants has recently published an attractive 24-page illustrated booklet, under the title *Accounting May Be the Right Field for You* (1), which provides an objective appraisal of the opportunities, requirements, work, returns, and professional growth afforded by a career as a CPA. Similarly, the General Motors Corporation has issued a simple, illustrated booklet called *Can I Be An Engineer?* (14); the American Institute of Mining and Metallurgical Engineers has published a monograph on *Careers in the Mineral Industries* (9); and the American Association of Advertising Agencies has made available *The Advertising Business and Its Career Opportunities* (2). An especially thorough, well-designed, and attractive set of publications is that in the Health Career Horizons Project sponsored by the National Health Council. This includes a *Health Careers Guidebook* (76), which contains objective information on 156 different health professions and occupations, a more compact booklet, *Partners for Health* (76), and a set of fliers and posters. Many other free, or inexpensive, pamphlets on occupations may be collected by alert counselors and made available to pupils in the guidance library.

A series of articles prepared by representatives of various professions and high-level occupations and run by the New York Life Insurance Company as a series of paid advertisements in lay magazines contains helpful information for parents and their children on a variety of careers. Among these articles, which are available in flat reprint and booklet form, are the following: "Should Your Child be an Accountant?"; "Should Your Child be

a Chemist?"; "Should Your Child be a Salesman?"; "Should Your Child be a Public Servant?"; "Should Your Child be a Teacher?"; "Should Your Child be a Lawyer?"; "Should Your Child be a Doctor?"; "Should Your Child be an Aeronautical Engineer?"; "Should Your Child be a Farmer?"; "Should Your Child be a Newspaper Man?"; "Should Your Child be an Architect?"; and "The Cost of Four Years at College" (71).

Still another source of information with regard to vocational opportunities is to be found in a coördinated series of pamphlets, such as the *SRA Career Information Kit* (83), published by Science Research Associates, Chicago, Illinois; the *Occupational Brief Series* (72), issued by B'nai B'rith Vocational Service Bureau, Washington, D.C.; and the *Vocational and Professional Monograph Series* (99), issued by the Bellman Publishing Company, Boston, Massachusetts.

Books and monographs on occupations tend to become out of date unless they are revised rather frequently. Counselors and counselees may be helped in keeping abreast of new developments by reading current magazines and professional journals, such as the *Personnel and Guidance Journal* (77), which is published monthly from September through May by the American Personnel and Guidance Association, Washington, D.C. and the *Vocational Guidance Quarterly* (100), which is issued four times a year by the National Vocational Guidance Association, Washington, D.C.

Practically all these occupational materials are suitable for use either individually and informally or with organized groups, although the use of certain ones, such as the *Dictionary of Occupational Titles* (24), calls for explanation and assistance from the counselor. Vocational orientation courses are probably the most generally used means of informing pupils in a systematic way relative to occupational opportunities. The success of such courses is largely dependent upon the initiative, industry, imagination, and enthusiasm of the instructor. Much work and planning is required to render such courses thoroughly dynamic and strictly up to date.

Exploratory courses form another means of disseminating information about occupational opportunities among young people. These courses allow pupils at the junior high school level to sample the work experience of various kinds of occupations within a relatively brief period of time. This type of direct experience should be supplemented by visitation and observation in local business and industrial plants. Visitation trips need to be carefully selected and planned, for they are time-consuming. But with young people these no doubt leave more lasting impressions concerning occupations than any which may be secured through the reading of occupational materials alone.

## INFORMATION ABOUT THE PUPIL HIMSELF AND HIS SCHOOL AND LIFE OPPORTUNITIES

The last kind of informational material to be mentioned here includes books and pamphlets written to help the pupil understand himself and appreciate the current and future opportunities which his school makes available to him. While these materials are informational in character, they frequently have inspirational elements as well. There is now a large number of such books addressed directly to the pupil and written from the standpoint of adolescent psychology. Among these are the following: *About You,* by Cosgrove and Josey (19); *You and Your Life,* by Randolph, Pixley, Duggan, and McKinney (79); *4-Square Planning for Your Career,* by Hamrin (45); *College and You,* by Sifferd (86); *Life Planning for College Students,* by Reilly (80); *Guide to Summer Jobs* (43); *So This Is College,* by Landis (58); *Stairway to College,* by Ruby and Ruby (81); and *College Orientation: A Study Skills Manual,* by Weigand and Blake (103). The *SRA Life Adjustment Booklets* and *Better Living Booklets,* published by Science Research Associates, include a total of more than 125 titles having to do with problems of pupils, parents, and teachers. These booklets, which are issued in paper covers and are available at 50 cents per copy, cover a wide variety of topics from the viewpoint of psychologists, psychiatrists, child-study specialists, and educators (59).

Films, such as *Finding Your Life Work* (28); *Planning Your Career* (78); *Discussion Problems in Group Living* (27); and *College: Your Challenge* (18), can be used to supplement reading materials and promote worthwhile group discussions. There is some research evidence, such as that in a study by Miller (69) which indicates that films are almost as effective as visits to industries in furnishing occupational information to students.

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CHAPTER IV

# Kinds of Information Needed: Use of Interviews and Questionnaires in Collecting Information

## NEEDED INFORMATION ABOUT INDIVIDUAL PUPILS

There are at least ten areas of the history and development of the individual pupil within which we need information for guidance purposes. In this chapter these areas will be listed separately for purposes of definition and discussion. At first glance this approach may seem to be inconsistent with the suggestion that guidance is a unitary process; however, the interrelationship rather than the separation of definable areas is stressed in this chapter. Although the areas may seem to consist of separate bits of information, they contain factors which are closely interrelated. One of the primary functions of the counselor is to obtain from these related factors a picture of the student as a whole and at the same time detect factors which may dominate the individual's whole adjustment.

One of the ten areas is *home background*. It is desirable to obtain facts concerning the parents, including type of occupation, education, health, birthplace, citizenship, and language spoken. Likewise, the names, sex, birth dates, education, and health of the siblings should be listed. In addition, it is helpful to have information in regard to type of community in which the home is located, study conditions in the home, availability of books and magazines for home reading, and other factors such as "broken home."

A second type of information has to do with *school history and record of class work*. Information should be available concerning names and types of schools attended, achievement in subjects and activities, and school difficulties encountered. There should, of course, be a complete record of the subjects studied by the pupil and of his progress in these subjects. This has, from the beginning, been the most common kind of information kept for individual pupils in schools, and it is probable that this is still true in the majority of schools in the United States. While all schools keep a record of the class work of their pupils, not all of them make the record in identical terms. This situation is to be expected, for we are in a period of transition with respect to records of class work. The conventional bases of reports of class work—the Carnegie Unit and the school mark—have been under fire for some years. Many schools, colleges, and other groups, including the Carnegie Foundation for the Advancement of Teaching, now tend to favor abandonment of the Carnegie Unit. Various individuals and groups have pointed to its limitations, including its tendency to cause the accumulation of credits to be the major objective of many students and its inapplicability to the curriculums of many modern secondary schools. It has been urged that, in view of the development of objective measurement techniques, it has become possible to assess the ability, knowledge, and proficiency of any individual more dependably through the use of these devices than

by means of units of credits often based largely upon time spent in class.[1]

As for the other time-honored basis of reports of class work, dissatisfaction with the indefinite and unreliable nature of marks and with their tendency to vary widely from one institution to another has caused some schools to abandon them in favor of a verbal statement of success achieved in the different fields of study. The guidance value of records of school work will be greatly enhanced if the information is made available in meaningful, qualitative terms instead of, or supplementary to, marks and credits expressed in units.

A third kind of information needed for guidance is an appraisal of the *mental ability or academic aptitude* of each pupil. It is generally recognized now that academic aptitude is not entirely an innate characteristic but is a combination of native capacity and training. The appraisal of the intelligence or academic aptitude of each individual might be done by means of rating procedures, but tests are so much more reliable than opinion that they have become the standard procedures for use in investigating aptitude.

Most secondary schools now administer one intelligence, or academic aptitude, test to their pupils at some time during their high school course, and a considerable number obtain the results of two or more such tests for each individual. Many schools administer different forms of the same test at intervals of a year, or perhaps every two or three years, in order to obtain a record indicating growth in mental ability. In the past, schools have commonly employed tests yielding just one mental age and IQ. While the results of tests of this kind are helpful, it is now widely recognized that tests yielding scores that have diagnostic values are more valuable in placement and guidance. Other things being equal, a school should give preference to an academic aptitude test that yields, in addition to a gross score, separate scores for at least linguistic aptitude and quantitative aptitude or language and nonlanguage aptitude. There is a growing tendency to use academic aptitude tests that yield from two to eight, or even more, part scores.

Nearly all tests of academic aptitude call for much reading, and the results are highly correlated with reading test scores. It is desirable, nevertheless, for the school to obtain reading test results as further evidence of academic aptitude. Reading ability is so important in school and college that students with special reading disability are almost certain to experience difficulty with courses in the humanities, social studies, and natural sciences.

[1] Arthur E. Traxler and Agatha Townsend (eds.). *Improving Transition from School to College*, pp. 62–65. New York: Harper & Brothers, 1953.

A fourth kind of guidance information concerning the individual has to do with *achievement and growth in different fields of study*. The class record furnishes information concerning the achievement of a student, but it is determined partly by the subjective judgment of the various teachers and is inevitably influenced to some extent by the effort, interest, enthusiasm, and personality of the student. The school should, if possible, supplement the class record with objective evidence of achievement based on comparable tests. A comprehensive achievement testing program should include for each pupil four or five tests, which are usually administered near the end of the year. Tests commonly used for college preparatory pupils in such a program are an English test, a foreign language test, and either broad field tests or the appropriate subject tests in mathematics, science, and social studies. For pupils in other courses, tests in English and social studies, and achievement tests appropriate to the particular courses may be used. For example, in the commercial field, tests of shorthand, typewriting, bookkeeping, business law, and so forth may be employed. The results of all achievement tests should be recorded cumulatively in either tabular or graphic form or both.

Information concerning achievement and growth obtained in the secondary school not only is valuable for guidance while the pupil is in school but is also helpful in making reports for selection and guidance purposes to higher institutions and to business and industrial organizations. One of the recommendations that the Committee on School and College Relations of the Educational Records Bureau submitted in 1941 to colleges was that in considering a candidate for entrance, colleges should give full weight to the results of comparable tests which have been constructed, administered, and scored by competent persons. The colleges apparently agreed with this recommendation in principle. Of the 400 colleges that replied to the questionnaire, more than three-fourths favored the recommendation (5). However, in a study of actual practices in college admission, which the committee carried on in 1949–50, it was found that only about 30 percent of the 607 colleges expressed willingness to accept test records from high schools (1). Doubt on the part of the colleges concerning the adequacy of the administration and scoring of tests used in many high schools was one of the reasons given for reluctance to accept such records.

A fifth type of guidance information deals with the *health* of the individual pupil. This kind of information may be obtained from questionnaires, interviews with the pupil, tests, and records of examination by the home or school physician. Mental, as well as physical, health should be included.

In the cumulative folder or file for each pupil, there should be a brief summary of the health and physical characteristics of the pupil, including vigor or lassitude, assets, and disabilities or limitations. In addition there should be a more detailed record of health, including periodic physical examinations and a disease history record. This information will usually be filed in the physical education office or the office of the school physician.

A sixth type of information needed in guidance consists of notes on the *out-of-school experiences* of the pupil. This type of information will be secured mainly by questionnaires and personal interviews. Special attention should be given to summer experiences and work experiences. Information in regard to work experiences should cover such items as type, duration, hours per week, earnings, and the degree to which the individual liked and enjoyed the work.

A seventh type of guidance information is concerned with the *educational and vocational interests* of the individual pupil. Modern psychology emphasizes the dynamic role of interest in all aspects of mental and emotional development. Interests should invariably be one of the reference points in personnel work with individuals.

The school should secure two kinds of information about the interests of each pupil. In the first place, it should keep a record of his activities as an indication of functioning interests. In the second place, it should be able to make a summary statement concerning the interests of the pupil on the basis of observation and scores on standardized interest questionnaires.

In the interpretation of interest data, the counselor should keep in mind the fact that the interests of many individuals change markedly during the secondary school years. Trends in interest development may be fully as important as the pattern of interests at any given time.

At present, many secondary schools record information concerning the activities in which the pupil is engaged. They also attempt to summarize the pupil's interests, but the value of this report often depends almost entirely on the accuracy of the counselor's judgment. Not many schools have extensive objective data on interests, although the number that recognize the importance of this phase of the pupil's development and the need for adequate information concerning it is significantly larger than it was 20 years ago. An increasing number of schools administer an interest inventory, such as the Strong Vocational Interest Blank or the Kuder Preference Record–Vocational at least once to each secondary school pupil.

Closely related to interests is an eighth aspect of pupil development about which the school should obtain information for guidance purposes. This type of information includes the student's *special aptitudes*—art, literature, music, mechanical skill, and so forth. In the case of many students, perhaps the majority of them, the secondary school cannot record anything very significant under this category, for a large proportion of the pupils have no unusually marked aptitude in any one field. But when a pupil has exceptionally high aptitude of a particular kind, the counselor should become informed of this fact as soon as possible. Awareness that the student possesses the aptitude will unquestionably influence the counselor's advice concerning courses and other relationships in the school and plans for future education and vocational choice. Information in regard to a pupil's special aptitudes may be obtained from the record of his activities in the school, the comments of his teachers and others who know him well, and the results of various aptitude tests. Few schools use specific aptitude tests extensively, and the main reliance will usually be placed on more subjective criteria of evaluation.

A ninth, and very important, area in which the guidance department needs information about individual pupils is that of *personality*. The eight categories already considered are indirectly related to personality, but here we are concerned more directly with a complex of qualities which, acting together, tend to shape the personality of the individual.

There is close agreement among teachers and counselors at all levels of the school that much attention should be given to personality development. It would, however, be impossible to suggest a list of personal characteristics which would be satisfactory to all educators. Every group that has tried to formulate a comprehensive set of personality traits has come out with a somewhat different list, although all of them overlapped to some extent. The components of personality may ultimately be isolated by means of factor analysis, but meanwhile lists of personal characteristics formulated as a result of a subjective analysis must be used as the basis of appraisal. One list being used extensively is included in the "Description of Behavior" section of the American Council on Education cumulative record form. It covers responsibility, creativeness, influence, adjustability, concern for others, seriousness of purpose, and emotional stability (7).

Many present-day schools are giving an increased amount of attention to the appraisal of the personal qualities of their students. Nevertheless, most schools are probably less well prepared to furnish valid information concerning this aspect of the status and growth of their pupils than about any of the other categories discussed in this chapter.

If schools in general are to be able to supply their

guidance departments with really valid information in this area, they must devote much time and thought to the improvement of procedures for appraising personality. Ratings made hastily by one individual, perhaps the principal or the counselor, at the end of the pupil's high school course are subject to large error. Personality "tests" are of some value in a counseling program, if they are used cautiously along with other information about the pupil and if the school has on its staff someone competent to interpret the scores, but those measures have not reached the stage of development where they can be employed with a high degree of confidence. Anecdotal records have marked possibilities as a basis for personality appraisal, but few schools have as yet solved the problems of obtaining systematic records from all the teachers and of summarizing the anecdotes. Behavior descriptions of the type devised by the Reports and Records Committee during the Eight-Year Study of the Progressive Education Association and reproduced in modified form in the ACE cumulative record probably provide one of the most workable procedures for the evaluation of personal qualities thus far developed. Through this plan, behavior descriptions can be obtained at regular intervals from all staff members acquainted with the individual and summarized when the pupil is graduated from the secondary school. Experience indicates that when a summary of behavior descriptions or of ratings of personal qualities is made, the school should not merely average them—for the average rating may not be the rating assigned by any one of the staff members—but it should also determine the most frequent rating and the spread of the ratings. Variability in behavior or in personal characteristics in different situations may be very significant from the personnel point of view.

The new Personal and Social Development Program worked out in detail by Flanagan (4) on the basis of his critical incidents technique seems especially promising for use by teachers.

The last area of guidance information which will be mentioned here is *plans for the future*. This area should include educational and occupational plans as indicated by the pupil, his parents, and his counselor. The information will be obtained chiefly from interviews and questionnaires.

It will be observed that in connection with the foregoing list of kinds of information needed, certain techniques for the collection of the information were mentioned repeatedly. These techniques included questionnaires, interviews, rating scales, behavior descriptions, objective tests, records in the form of anecdotal material, and cumulative records. These techniques will be discussed in considerable detail in the next section and in the following chapters.

## PROCEDURES FOR COLLECTING INFORMATION

As indicated in the first part of this chapter, a considerable amount of the information about individuals which is needed for guidance may be obtained from tests and other objective techniques. For those areas in which they are applicable, objective techniques should be preferred, for they provide data whose reliability and impersonal quality are highly desirable as a starting point in counseling. It is obvious, however, that certain kinds of information must necessarily be collected directly from the parents or the pupil, not through objective procedures, but by means of interviews or questionnaires. These kinds of information include especially home background, social history, certain aspects of the school history, certain aspects of the health history, extracurricular activities, work and summer experiences, interests, school subjects preferred and those disliked, conditions for study outside the school, voluntary reading, and educational and vocational plans.

## THE INTERVIEW AS A MEANS OF GATHERING INFORMATION[2]

If time were available for extensive individual conferences, there can be little doubt that the most satisfactory procedure for the collection of information in some of the areas listed would be a personal interview with each individual. The interview is a particularly fortunate medium because of its flexibility, the possibility of pursuing main questions through a series of more detailed questions, and the opportunity for drawing pupils out and getting them to express themselves freely concerning activities, interests, plans, and so forth. It is the most extensively used technique in personnel work. In independent schools,[3] which are well staffed in proportion to the number of pupils enrolled, and in some of the smaller public schools, it may be possible to dispense with questionnaires altogether and to handle the collection of social background information entirely by means of interviews. The interview, of course, has many other uses, some of them therapeutic, but we are here concerned with the value of the interview in gathering information.

[2] For an extensive and authoritative discussion of this topic, see Walter V. Bingham and Bruce V. Moore, *How to Interview* (rev. ed.). New York: Harper & Brothers, 1941.

[3] Independent schools, as the term is used in this book, include college preparatory schools, church-supported schools, military schools, and all other schools not publicly maintained and controlled.

When guidance information is to be derived from interviews, the counselor should, of course, plan carefully for each interview. He should formulate a definite series of questions, and he should have them so well in mind that the interview will take on a certain objective and scientific character notwithstanding its freedom and latitude.

Although the counselor should be prepared to ask certain important questions in a predetermined way, he should avoid allowing the interview to seem stereotyped and formal to the pupil. He should spend a few moments at the beginning of the interview in establishing rapport, and his questions should seem to arise naturally in the course of a pleasant conversation. The carrying out of a definite line of questioning in an informal and cordial setting is a difficult achievement which calls for natural sympathy and diplomacy and considerable experience. Properly applied, however, it is the most satisfactory technique for obtaining information in the less tangible areas.

Care should be used to see that the interview does not take on the character of an inquisition or even that of an oral questionnaire. Too direct a line of questioning may defeat the purpose by arousing a feeling of antagonism and resentment. The pupil should be encouraged to talk freely and to volunteer information which he feels is important.

When the counselor is obtaining information for use in guidance later, he will, of course, need to make a written record of the pertinent facts. Nevertheless, he should do as little writing as possible during the interview. A counselor whose memory is good can probably avoid writing anything while the interview is in progress, while one who does not easily recall factual statements may need to make occasional notes, with the counselee's consent. In this event, the writing should be done so briefly and easily that the thread of the conversation is not broken. Immediately after each interview, the counselor should make a detailed written summary of the information secured. He cannot afford to depend for long upon his memory, nor should he, even if he could hold the facts in mind indefinitely, for a brief written record of the interviews which take place between pupil and counselor and also between the counselor and persons who know the pupil will be an important addition to the cumulative record.

The interview record may be set down in the form of notes or paragraph statements, or it may be made on a specially prepared blank. Some schools have devised their own blanks for this purpose. A very simple blank which may serve the counselor for everyday use in interviewing pupils is illustrated in Form 1.

While it is ordinarily desirable to keep a record of each interview, a counselor may sometimes receive information which is too confidential to be written down. Or, if it seems necessary to make a record of certain confidential information, it is advisable to keep it in a sealed envelope which is to be opened by a person other than the counselor only under extraordinary circumstances. The general rule is that information given in confidence during interviews is "privileged communication," and ethical standards require that such confidences be guarded as a trust, not to be revealed except when they imply "clear and imminent danger to an individual or to society" (3). There may occur, however, rare circumstances in which a school counselor may be required by a court of law to release confidential records. The legal immunity to the revealing of information obtained in professional confidence is not so great for counselors as it is for members of more firmly established professions, such as medicine.

**INTERVIEW RECORD**

Name of Student: ____________________

Name of Counselor: ____________________

Date: ____________________

| | |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

**FORM 1.**

## QUESTIONNAIRE FOR HIGH SCHOOL PUPILS

To the pupil. Please fill out this questionnaire so that your counselor may have more information about you and thus be in a better position to help you with any problems that may arise. The information will be treated confidentially.

1. Name ______________________________ 2. Date __________
   Last First Middle

3. Address ______________________________ 4. Tel. No. __________

5. Birthplace ______________________________ 6. Date of Birth __________
   Mo. Day Year

7. Citizenship ____________________ 8. Church membership __________

9. Father's name ____________________ 10. Father's occupation __________

11. Mother's name ____________________ 12. Mother's occupation __________

13. Do you live in a house or in an apartment? __________

14. Do you have a separate room? __________

15. Number of older brothers __________ Number of older sisters __________

    Number of younger brothers __________ Number of younger sisters __________

16. Names of brothers and sisters who have attended or are attending this school __________

    ______________________________

17. What elementary school or schools did you attend? __________

    ______________________________

18. Have you attended any high school other than this one? __________ If so, what one? __________

    ______________________________ What high school years __________

19. Date of entrance to this school __________ Grade entered __________

20. What subject or subjects in school do you like best? __________

    ____________________ Why? __________

    ______________________________

21. Are there any subjects that you dislike? __________ What ones? __________

    ______________________________

**FORM 2(a).**

22. Do you study at home?______ How many hours per day, on the average?______

23. Have you ever repeated a school subject or grade?______ If so state what subject or grade ______

24. Do you play a musical instrument?______ What one?______

25. Do you take part in interscholastic sports?______ What ones?______ ______ In intramural sports?______ What ones?______

26. Why do you prefer the kind of athletics in which you take part?______

27. Estimate the number of hours you spend in recreation outside school each day ______

28. To what school clubs do you belong?______

29. What school offices are you holding now?______

30. What school offices have you held before this year?______

31. Do you expect to go to college?______ To what college?______

32. In what department do you expect to specialize?______

33. Have you selected a vocation?______ If so, what one?______

34. Do you enjoy reading?______ If so, what type of book do you prefer?______

35. Who are your favorite authors?______

36. What magazines do you read?______

37. How often do you attend the movies?______

38. What kind of movies do you like best?______

FORM 2(b).

39. Approximately how much time do you spend each week listening to the radio? ____________

Listening to records played on your own record player? ____________

Watching television? ____________

40. How did you spend your past summer? ____________

____________

41. Name any summer camps you have attended and give dates ____________

____________

42. Have you traveled in this country or abroad? ________ If so, state the nature and extent of travel ____________

____________

43. Do you have any responsibilities or duties at home? ________ If so, describe briefly ________

____________

44. Do you participate in any church activities? ________ If so, what ones? ________

____________

45. What special interests do you carry on during your spare time and approximately how long have you had each special interest? ____________

____________

____________

46. Remarks ____________

____________

____________

____________

**FORM 2(c).**

PLAINFIELD HIGH SCHOOL

Pupil Questionnaire

To be of most assistance to you in planning your way through school, each one of your teachers would like to have a talk with you about your ambitions, interests, and activities. It would, of course, be ideal if some arrangement could be made whereby you could meet with all your teachers at one time; such an arrangement would conserve your time and theirs. But this is scarcely feasible when almost two thousand pupils are involved.

The following questionnaire represents an attempt to find a substitute for an interview at which you and all your teachers talk over your plans. We expect your fullest co-operation in answering these questions, and by so doing, helping us in our endeavors to help you.

NAME ______________________________

HOMEROOM __________________________

DATE ______________________________

**FORM 3(a).**

Part A

NAME ______________________________________________
Last First Middle

1. Where were you born ______________________________
(City and State, or City and Foreign Country)

2. How old were you on your last birthday? __________________

When is your birthday? ______________________________
Month Day

3. Address ______________________________

4. Telephone Number ______________________________

5. Of what church are you a member? ______________________________

6. Name the different school systems where you have gone to school: (Give grades)

______________________________

7. What is the condition of your general health? ______________________________

Do you suffer from headaches? __________ Other pains? __________

Have you ever had any trouble with your eyes? ______________________________

Have glasses been recommended for you? ______________________________

Do you wear glasses? __________ Have you ever had trouble in hearing? __________

Do you have heart trouble? __________ Have you any other physical defects? __________

What are they? ______________________________

Have you ever had an illness which kept you out of school for a month or more? __________

When? __________ What was it? __________

How many days have you been absent from school this year because of ill-health? __________

What ailments caused these absences? ______________________________

______________________________

8. Do you complete all assigned school work in school during study period? __________

9. How many nights a week, on the average, do you take home assigned school work to do there?

______________________________

**FORM 3(b).**

10. When you do have homework, how many hours of studying per night do you estimate you spend?
______________________________

11. Describe your home study conditions (room, possible distractions, light, help available to you, etc.) ______________________________
______________________________

12. Do others study with you quite often? __________ Who? __________

13. What school subjects do you like most? ______________________________
______________________________
Why? ______________________________
______________________________

14. What school subjects do you dislike most? ______________________________
______________________________
Why? ______________________________
______________________________

15. Do you play a musical instrument? __________ What? __________

16. Do you intend to try for any of the school teams or join any of the school organizations? __________
What? ______________________________

17. What is your particular hobby or interest? ______________________________

18. How do you spend your spare time? (Answer fully) ______________________________
______________________________
______________________________
______________________________
______________________________
______________________________
______________________________
______________________________
______________________________

FORM 3(c).

19. Have you decided what you want to do upon leaving high school?_____

What?_____

20. In what occupations are you interested?_____

_____

Why?_____

21. When do you intend to leave school?_____

Is this because you have to help the family, or because you wish to do so?_____

_____

22. Would you like to attend any school after you graduate from high school?_____

Name and type of school _____

23. Whom have you consulted regarding your preparation for this school?_____

_____

24. Do you support yourself completely or in part?_____

25. Father's name _____

Is his health good?_____

Birthplace?_____

(City and State, or City and Foreign Country)

Nationality?_____

Arrived in U.S.A. in what year?_____

Occupation?_____ Business Firm?_____

Address (Business)_____

Telephone (Business)_____

Died (date)_____

26. Mother's name_____

Is her health good?_____

Birthplace _____

(City and State, or City and Foreign Country)

**FORM 3(d).**

Nationality? ____________________

Arrived in U.S.A. in what year? ____________________

Occupation? ____________________

Address ____________________

Telephone ____________________

Died (date) ____________________

27. Step-parent or guardian's name ____________________

Is (his, her) health good? ____________________

Birthplace? ____________________

(City and State, or City and Foreign Country)

Nationality? ____________________

Arrived in U.S.A. in what year? ____________________

Occupation? ____________________

28. Older brothers and sisters (Names and Ages): ____________________

____________________

29. Younger brothers and sisters (Names and Ages): ____________________

____________________

30.

| | Years in Grammar School | Years in High School | Years in College | College (name) |
|---|---|---|---|---|
| Father (Guardian) | | | | |
| Mother (Guardian) | | | | |
| Brother | | | | |
| " | | | | |
| " | | | | |
| " | | | | |
| " | | | | |
| " | | | | |

FORM 3(e).

| | Years in Grammar School | Years in High School | Years in College | College (name) |
|---|---|---|---|---|
| Sister | | | | |
| " | | | | |
| " | | | | |
| " | | | | |
| " | | | | |
| " | | | | |

31. What language or languages were spoken in your home:

    1. Before you were 10 years old?________________

    2. After you were 10 years old?________________

32. Do you have relatives, or close friends of the family, whom you consider very successful?________

    Relation (if any) to you?________________

    Occupation? ________________

33. Are you interested in similar work?________________

## Part B

34. What school offices have you held?

| 1953-1954 | 1954-1955 |
|---|---|
| | |

35. Unusual experiences:

    What prizes, medals, or honors have you won?________________

    What poem, letter or article have you written that has been published?________________

**FORM 3(f).**

Have you built or made anything unusual (a boat, a cabin, an engine, etc.)? ____________

______________________________________________

Have you appeared on a radio broadcast program? ____________

Have you appeared on a TV broadcast program? ____________

Have you ever given a musical recital? ____________

What foreign countries have you visited? ____________

____________ When? ____________

Other unusual experiences not listed above: ____________

______________________________________________

36. What school offices have you held? (Give year) ____________

______________________________________________

______________________________________________

______________________________________________

37. Of what school clubs have you been a member? (Give year) ____________

______________________________________________

______________________________________________

______________________________________________

38. How much time do you spend on extra-curricular activities?

| Athletic | Hours a week | Non-Athletic | Hours a week |
|---|---|---|---|

FORM 3(g).

39. What work do you perform daily or weekly in your home? ______________________

______________________________________________________________________________

Have you a job outside your home? ____________ What kind of work is it? ____________

______________________________________________________________________________

Where do you work? ____________________________________________________________

How many hours do you work each day? ______________ Each week? ______________

How late do you work at night? ________________________________________________

40. List all jobs you have held for the past two years:

| | 1954 | 1955 |
|---|---|---|
| Type | | |
| Duration | | |
| Weekly Pay | | |
| Hrs. a wk. | | |

41. Describe in some detail how you have spent your summers:

1954

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

1955

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

**FORM 3(h).**

## WOODLAWN HIGH SCHOOL PUPIL QUESTIONNAIRE

Name ______________________________ Date ______________

Address ______________________________

Age __________ Birthdate ______________ Birthplace ______________

General Health ______________________________

Religion* ______________ Race or Nationality* ______________

Father's name ______________ Birthdate ______________

Birthplace ______________ General Health ______________

Religion ______________ Race or Nationality ______________

Occupation ______________ Business Address ______________

Mother's name ______________ Birthdate ______________

Birthplace ______________ General Health ______________

Religion ______________ Race or Nationality ______________

Occupation ______________ Business Address ______________

Language spoken in home before age 10 ______________ after age 10 ______________

Type of community lived in before age 10 ______________ after age 10 ______________

In case parents are separated, give year of separation, if known ______________

Name of adviser ______________________________

Do you enjoy physical education? ______________ Do you take part in sports? ______________

What ones? ______________________________

Please list your out-of-school activities and interests ______________________________

______________________________

**FORM 4(a).**

What noteworthy experiences have you had, such as living or travel in foreign countries, summer jobs, and so forth ________________________________________

________________________________________

What plans do you have for future education? ________________________________________

________________________________________

Have you chosen the kind of vocation you expect to enter as a life work? ____________________

If so, what one? ________________________________________

________________________________________

Remarks ________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

*It should be noted that the propriety of including questions about race or religion varies from one place to another. In many of the smaller, comparatively homogeneous communities, these are not emotionally related questions, and it is entirely proper to ask them. In other places, particularly some of the large metropolitan communities, these questions may be objectionable to pupils and parents, and it is advisable to omit them. In certain states, questions of this kind are forbidden by law.

**FORM 4(b).**

## USE OF QUESTIONNAIRES IN COLLECTING INFORMATION

Notwithstanding the advantages of the interview as a means of gathering information, it is not practicable for counselors in a large school to try to interview every new pupil at the beginning of the school year in order to secure the information needed as a starting point for the guidance of the individual. In gathering the required data, most schools will necessarily resort to a printed or mimeographed information blank or questionnaire. Questionnaires have often been criticized for their unreliability, but their reliability can be greatly increased if they are used as standardized interview forms and are filled out under careful supervision.

It is preferable to have the information concerning social history and home background supplied by the parents rather than by the pupils themselves; in fact, this is the only reliable procedure if the children are young. In private schools and in public schools in small communities, it may be possible to have one of the parents, usually the mother, of each pupil come to the school and fill out the social history questionnaire. A plan of this kind was used for years in connection with the Records Office of the University of Chicago Laboratory Schools. Regardless of whether the child was entering the kindergarten, the elementary school, or the high school, one of the parents was asked to come to the Records Office and fill out an extensive social history blank. The questionnaire was based directly on the master record cards, and all information requested was needed in filling out the cards. A representative of the Records Office was always present to answer questions and assist the parents in providing the needed information.

In large public schools, it is seldom feasible to try to get the parents to fill out the questionnaire under supervision, and the school must either send it to the parents to be filled out and returned or depend on getting the information from the pupils. In junior and senior high schools, the latter plan is probably preferable, for the pupils can readily be assembled and instructed to fill out, under supervision, a questionnaire specially prepared for them. Moreover, if the pupils are relatively mature, certain questions, such as those pertaining to interests and to educational and vocational plans, should be answered by the pupils themselves.

Experience has shown that if the questionnaire is carefully planned and specific directions are given for answering the questions, it can be filled out in homerooms or guidance rooms with satisfactory accuracy. There should be either an oral or a written introductory statement explaining the purpose of the questionnaire to the pupils and enlisting their coöperation. A clear and diplomatic statement of the purpose of the questionnaire is important, for some of the pupils may feel that certain questions tend to encroach upon their privacy. They will be more likely to answer the questions willingly and honestly if they know that the information will be treated confidentially by the counselors and will be used to help the pupils themselves as individuals.

The guidance department in each school should formulate its pupil questionnaire to fit its own situation. A questionnaire which was prepared by a guidance chairman to obtain background information from the pupils in one high school is shown in Form 2. It was filled out in the guidance groups under the supervision of the counselors and was filed in the pupil's cumulative folder which was kept by his counselor.

Some high schools employ a still more extensive and detailed pupil questionnaire, particularly in the earlier years of the high school. An excellent illustration of such a questionnaire is one developed at the Plainfield High School, Plainfield, New Jersey, under the direction of Dr. Adria Galbraith, who is in charge of testing and records. This questionnaire is filled out in ninth and tenth grade homerooms and is kept as a part of the counselor's individual pupil file. Approximately two homeroom periods of 38 minutes are required for the completion of the questionnaire. A much abbreviated questionnaire is used in the eleventh and twelfth grades.

The full questionnaire for pupils in Grades 9 and 10 is reproduced in Form 3.

If the school maintains individual cumulative record cards to which information from the pupil questionnaires is transferred, it is desirable to employ a questionnaire, the items of which will closely parallel certain items on the cumulative record. For example, the questionnaire shown as Form 4 is designed to be used with the Educational Records Bureau Cumulative Record for Independent Schools which appears as Form 9 in Chapter XIII.

Other illustrations of pupil questionnaires suitable for use in a guidance program can be found in educational journals. For example, Hoyt (6) presented a personal history blank designed to be filled out in a group and discussed its uses.

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7. *1941 Revision of American Council on Education Cumulative Record Card for Junior and Senior High Schools.* Prepared by the Committee on the Revision of Cumulative Records (Eugene R. Smith, chmn.). Washington: American Council on Education, 1941.
8. Traxler, Arthur E., and Townsend, Agatha (eds.). *Improving Transition from School to College.* New York: Harper & Brothers, 1953. Pp. xviii + 166.

CHAPTER V

# *Appraisal of Aptitudes for Guidance Purposes*

LET US TURN FROM QUESTIONNAIRES AND interviews to more objective procedures for collecting information for guidance. These procedures include tests, rating scales, and other devices for measurement and evaluation. Tests may be divided into three broad classes: aptitude tests, achievement tests, and tests of personal qualities, including interests. The present chapter will deal with the first group—tests of aptitude. No attempt will be made in this chapter to provide a complete coverage of all aptitude tests in the manner of a book on tests and measurements, but it will present a point of view concerning the measurement of aptitudes and a discussion of certain selected instruments which experience and observation have shown to be useful in a guidance program.[1]

## WHAT IS APTITUDE?

Aptitude is a condition, a quality, or a set of qualities in an individual which is indicative of the probable extent to which he will be able to acquire, under suitable training, some knowledge, understanding, skill, or composite of knowledge, understanding, and skill, such as ability to contribute to art or music, mechanical ability, mathematical ability, or ability to read and speak a foreign language. Aptitude is a present condition which is indicative of an individual's potentialities for the future.

Laymen, and sometimes teachers and counselors, give evidence of a misconception which causes them to regard aptitude as almost entirely inborn, and aptitude tests as measures of innate characteristics. It should be clearly understood that aptitude tests measure a complex of innate tendencies and influence of training, and that there is no way of separating the influences of heredity and environment in the test results. From a theoretical point of view, this situation may be cause for regret, but in the practical work of counseling there is no need for a separation of the influences of innate tendencies and experience on the basis of the person's present aptitude. In fact, if the counselor were able to make the separation on a valid basis, he probably would not know what to do with his data in his personnel work with the individual. He needs the total picture of present aptitude regardless of the influences which have created that aptitude, but he needs also to be aware that when he is thinking in terms of aptitude, he is dealing with something that is only partly inborn and that is constantly being modified to some extent by the day-to-day experience of the individual student.

It is important for the counselor to recognize that certain aptitudes are more readily influenced by experience than others. For example, musical and artistic aptitudes seem to include important hereditary components, while numerical and spatial aptitudes are probably strongly influenced by training and experience. Remedial work in arithmetic might help a pupil to improve his numerical aptitude, and courses in engineering apparently have a tendency to raise a student's spatial aptitude (7). It is doubtful, however, whether instruction in music can have much effect on the musical aptitude of an individual who lacks a sense of pitch, time, rhythm, timbre, or other fundamental musical qualities.

There are three important assumptions concerning aptitudes which are justified by general observation and research, and which are among the basic tenets of a pro-

[1] For an up-to-date, thorough, and not too highly technical treatment of all aspects of testing discussed in this and subsequent chapters, see H. H. Remmers and N. L. Gage, *Educational Measurement and Evaluation,* rev. ed. New York: Harper & Brothers, 1955.

gram of guidance which lays any claim to being scientific. The first assumption is that few, if any, individuals have equally strong aptitudes in all directions. If one were able to make a perfectly valid and reliable measurement of an individual's aptitudes and were to graph the results, the resulting curve would consist of peaks and valleys. Almost every normal individual learns some activities easily, others with a moderate amount of effort, and still others only, if at all, with extremely long and arduous application.

A second assumption is that there are wide differences among individuals in every aptitude they possess, regardless of whether broad aptitudes or very specific aptitudes are being considered. Moreover, a certain type of curve has commonly been used to express these differences. The hypothesis has been widely accepted by theorists and research workers in psychology that on numerous measurable characteristics individuals tend to distribute themselves according to the normal or bell-shaped curve. According to this hypothesis, most individuals tend to be grouped very close to the median or average, and the number thins out rapidly on each side of the average. The normal curve is the basis of a large proportion of all educational and psychological measurement and research, although some psychologists and experts in measurement hold that there are many characteristics to which it is not applicable.

It is true that the apparent normality of distribution of

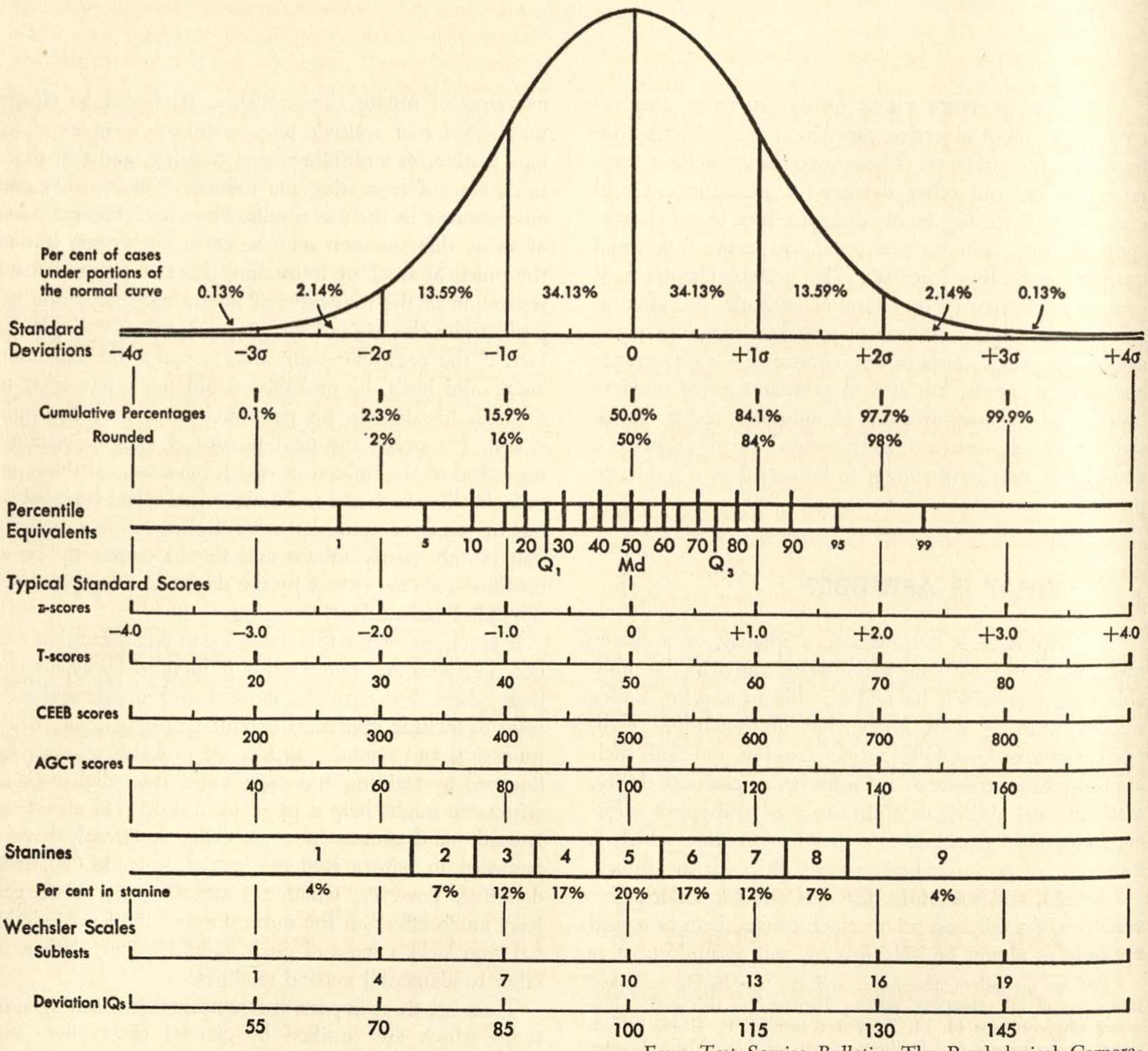



**FIGURE 3.**

From *Test Service Bulletin,* The Psychological Corporation, January, 1955, p. 2.

individuals on a particular characteristic may be an artifact resulting from the way the measurement instrument was constructed and the level at which it is employed. For example, if a test of word meaning is carefully prepared through the usual test construction procedures for use with the usual public school population at the eighth grade level, it is highly probable that henceforth whenever the test is employed with a large group of eighth grade pupils in the usual public school, the resulting scores will approximate a normal distribution. If, however, the test were to be given to a population very different from that for which it was designed—for example, pupils in Grade 3, college freshmen, eighth grade pupils in a very "underprivileged" community, or extremely superior eighth graders, the distributions of scores thus obtained would be far from normal.

Counselors need not be highly conversant with error theory in which the normal curve hypothesis finds its most advanced application, but they should be aware that the normal curve and the standard deviation along the baseline under the normal curve are the bases of nearly all systems of converted or derived or standard scores in terms of which the results of objective tests are very frequently expressed. Figure 3 may be helpful in visualizing the normal curve, in showing the relationship between the normal curve and the sigma scale, or standard deviation scale, and in clarifying relationships of both the normal curve and the sigma scale to several kinds of derived scores.

The third hypothesis is that differences among individuals and within individuals tend to persist within limits. They are fairly, although not completely, stable. An individual who is definitely superior in a certain kind of aptitude at the age of 6 will, as a rule, be above average in that kind of aptitude at the age of 16 or 26. Patterns of aptitudes do change to some extent, but a complete reversal in aptitudes within the life span of an individual is practically unknown if pathological cases or cases involving severe accidents are ruled out. If it were not for the fairly persistent character of aptitude, a long-term guidance program would be a waste of time and might actually be harmful to many individuals.

## EXPLANATION OF NORMAL CURVE AND SCORES DERIVED FROM IT

The following paragraphs which constitute a detailed explanation of the graph reproduced in Figure 3 are reprinted from *Test Service Bulletin* No. 48 (January 1955), pp. 1–4, with the permission of Dr. Harold G. Seashore, editor of the *Test Service Bulletin* and director of the Test Division of The Psychological Corporation:[2]

Let us look first at the curve itself. Notice that there are no raw scores printed along the baseline. The graph is generalized; it describes an idealized distribution of scores of any group on any test. We are free to use any numerical scale we like. For any particular set of scores, we can be arbitrary and call the average score zero. In technical terms we "equate" the mean raw score to zero. Similarly we can choose any convenient number, say 1.00, to represent the scale distance of one standard deviation. (The mathematical symbol for the standard deviation is the lower case Greek letter sigma, or $\sigma$. These terms are used interchangeably in this article.) Thus, if a distribution of scores on a particular test has a mean of 36 and a standard deviation of 4, the zero point on the baseline of our curve would be equivalent to an original score of 36; one unit to the right, $+1\sigma$, would be equivalent to 40, $(36 + 4)$; and one unit to the left, $-1\sigma$, would be equivalent to 32, $(36 - 4)$.

*The total area under the curve represents the total number of scores in the distribution.* Vertical lines have been drawn through the score scale (the baseline) at zero and at 1, 2, 3, and 4 sigma units to the right and left. These lines mark off subareas of the total area under the curve. The numbers printed in these subareas are per cents—*percentages of the total number of people.* Thus, 34.13 per cent of all cases in a normal distribution have scores falling between 0 and $-1\sigma$. For practical purposes we rarely need to deal with standard deviation units below $-3$ or above $+3$; the percentage of cases with scores beyond $\pm 3\sigma$ is negligible.

The fact that 68.26 per cent fall between $\pm 1\sigma$ gives rise to the common statement that in a normal distribution roughly two-thirds of all cases lie between plus and minus one sigma. This is a rule of thumb every test user should keep in mind. It is very near to the theoretical value and is a useful approximation.

Below the row of deviations expressed in sigma units is a row of per cents; these show *cumulatively* the percentage of people which is included *to the left* of each of the sigma points. Thus, starting from the left, when we reach the line erected above $-2\sigma$, we have included the lowest 2.3 per cent of cases. These percentages have been rounded in the next row.

Note some other relationships: the area between the $\pm 1\sigma$ points includes the scores which lie above the 16th percentile $(-1\sigma)$ and below the 84th percentile $(+1\sigma)$—two major reference points all test users should know. When we find that an individual has a score $1\sigma$ above the mean, we conclude that his score ranks at the 84th percentile in the group of persons on whom the test was normed. (This conclusion is good provided we also add this clause, at least subvocally: *if this particular group reasonably approximates the ideal normal model.*)

[2] Dr. Seashore's statement is quoted at length, not only because it provides an excellent explanation of the normal curve, but also because it discusses in simple language several kinds of widely used scores which are derived from this curve.

The simplest facts to memorize about the normal distribution and the relation of the *percentile* system to deviations from the average in sigma units are seen in the chart. They are

| | | | | | |
|---|---|---|---|---|---|
| Deviation from the mean | $-2\sigma$ | $-1\sigma$ | 0 | $+1\sigma$ | $+2\sigma$ |
| Percentile equivalent | 2 | 16 | 50 | 84 | 98 |

To avoid cluttering the graph reference lines have not been drawn, but we could mark off 10 per cent sections of area under the normal curve by drawing lines vertically from the indicated decile points (10, 20, . . . 80, 90) up through the graph. The reader might do this lightly with a colored pencil.

We can readily see that 10 per cent of the area (people) at the middle of the distribution embraces a smaller *distance* on the baseline of the curve than 10 per cent of the area (people) at the ends of the range of scores, for the simple reason that the curve is much higher at the middle. A person who is at the 95th percentile is farther away from a person at the 85th percentile in units of *test score* than a person at the 55th percentile is from one at the 45th percentile.

The remainder of the chart, that is, the several scoring scales drawn parallel to the baseline, illustrates variations of the *deviation score* principle. As a class these are called *standard scores.*

First, there are the *z-scores.* These are the same *numbers* as shown on the baseline of the graph; the only difference is that the expression, $\sigma$, has been omitted. These scores run, in practical terms, from $-3.0$ to $+3.0$. One can compute them to more decimal places if one wishes, although computing to a single decimal place is usually sufficient. One can compute z-scores by equating the mean to 0.00 and the standard deviation to 1.00 for a distribution of any shape, but the relationships shown in this figure between the z-score equivalents of raw scores and percentile equivalents of raw scores are correct only for normal distributions. The interpretation of standard score systems derives from the idea of using the normal curve as a model.

As can be seen, T-scores are directly related to z-scores. The mean of the raw scores is equated to 50, and the standard deviation of the raw scores is equated to 10. Thus a z-score of $+1.5$ means the same as a T-score of 65. T-scores are usually expressed in whole numbers from about 20 to 80. The T-score plan eliminates negative numbers and thus facilitates many computations.

The College Entrance Examination Board uses a plan in which both decimals and negative numbers are avoided by setting the arbitrary mean at 500 points and the arbitrary sigma at another convenient unit, namely, 100 points. The experienced tester or counselor who hears of a College Board SAT-V score of 550 at once thinks, "Half a sigma (50 points) above average (500 points) on the CEEB basic norms." And when he hears of a score of 725 on SAT-N, he can interpret, "plus $2\frac{1}{4}\sigma$. Therefore, better than the 98th percentile."

During World War II the Navy used the T-score plan of reporting test status. The Army used still another system with a mean of 100 and a standard deviation of 20 points.

Another derivative of the general standard score system is the *stanine* plan, developed by psychologists in the Air Force during the war. The plan divides the norm population into nine groups, hence, "standard nines." Except for stanine 9, the top, and stanine 1, the bottom, these groups are spaced in half-sigma units. Thus, stanine 5 is defined as including the people who are within $\pm 0.25\sigma$ of the mean. Stanine 6 is the group defined by the half-sigma distance on the baseline between $+0.25\sigma$ and $+0.75\sigma$. Stanines 1 and 9 include all person who are below $-1.75\sigma$ and above $+1.75\sigma$, respectively. The result is a distribution in which the mean is 5.0 and the standard deviation is 2.0.

Just below the line showing the demarcation of the nine groups in the stanine system there is a row of percentages which indicates the per cent of the total population in each of the stanines. Thus 7 per cent of the population will be in stanine 2, and 20 per cent in the middle group, stanine 5.

Interpretation of the Wechsler scales (W-B I, W-B II, WISC, and WAIS) depends on a knowledge of standard scores. A subject's raw score *on each of the subtests* in these scales is converted, by appropriate norms tables, to a standard score, based on a mean of 10 and a standard deviation of 3. The sums of standard scores on the Verbal Scale, the Performance Scale, and the Full Scale are then converted into IQs. These IQs are based on a standard score mean of 100, the conventional number for representing the IQ of the average person in a given age group. The standard deviation of the IQs is set at 15 points. In practical terms, then, roughly two-thirds of the IQs are between 85 and 115, that is $\pm 1\sigma$. IQs of the type used in the Wechsler scales have come to be known as *deviation* IQs, as contrasted with the IQs developed from scales in which a derived mental age is divided by chronological age.[3]

Users of the Wechsler scales should establish clearly in their minds the relationship of subtest scaled scores and the deviation IQs to the other standard score systems, to the ordinary percentile rank interpretation, and to the deviation units on the baseline of the normal curve. For example, every Wechsler examiner should recognize that an IQ of 130 is a score equivalent to a deviation of $+2\sigma$, and that this IQ score delimits approximately the upper two per cent of the population. If a clinician wants to evaluate a Wechsler IQ of 85 along with percentile ranks on several other tests given in school, he can mentally convert the IQ of 85 to a percentile rank of about 16, this being the percentile equal to a deviation from the mean of $-1\sigma$. Of course he should also consider the appropriateness and comparability of norms.

Efficiency in interpreting test scores in counseling, in clinical diagnosis, and in personnel selection depends, in part, on facility in thinking in terms of the major interrelated plans by which meaningful scores are derived from raw scores. It is hoped that this graphic presentation will be helpful to all who in their daily work must help others understand the information conveyed by numerical test scores.

[3] Deviation IQ's are also employed with the Otis Self-Administering Tests of Mental Ability, the Otis Quick-Scoring Mental Ability Tests, and a number of other widely used intelligence tests. A.E.T.

## KINDS OF APTITUDE TESTS

Aptitude tests may be divided into two broad classes, known as *tests of general aptitude* and *tests of aptitude in specific fields*. General aptitude tests are designed to measure a wide range of aptitudes, particularly those important in school work. Tests of aptitude in specific fields include tests of musical aptitude, art aptitude, mechanical aptitude, clerical aptitude, and so forth.

## APTITUDE AND INTELLIGENCE

Tests of general scholastic aptitude have long been known as intelligence tests. There is now a tendency to favor the terms "academic aptitude test" or "scholastic aptitude test" rather than "intelligence test," because to many people "intelligence test" implies a measure of native ability.

Intelligence is generally understood to be "ability to learn" or "ability to solve new problems." Tests of intelligence usually have not been composed wholly or even mainly of new problems, for it is very difficult to improvise problems or situations that will be new to everyone. The more common procedure in constructing intelligence tests has been to base the questions on materials which everyone for whom the test is designed has presumably had an opportunity to learn. The assumption is that under these conditions those who have learned the most are the most intelligent.

Within recent years, some authorities have criticized the conventional verbal intelligence tests on the ground that they are partly culture-determined and that they contain items which individuals from certain social and economic levels had not had much opportunity to learn (13, 26). This point of view has led to the preparation of intelligence, or general aptitude, tests reputed to be "culture free" or at any rate "culture fair." These tests deserve careful consideration, although greater strength would be lent to the position of the proponents of culture-free tests if it could be shown that the factors making for success in higher education and in the higher level vocations were themselves culture free.

The results of most intelligence tests are reported in terms of the IQ, which by definition is the mental age divided by the chronological age (disregarding the decimal point), although as indicated earlier in this chapter this is not the procedure for finding the IQ on certain tests such as the Wechsler scales and the Otis tests. For a good many years, psychologists debated the constancy of the IQ,[4] but the debate has largely subsided in recent times. Probably no reputable psychologist has ever believed that the IQ is entirely constant, although there has been a popular belief in its constancy. Numerous growth studies have refuted the hypothesis of the complete constancy of the IQ. However, the IQ continues to be a useful concept provided one remembers that it is influenced to some extent by schooling and by other environmental factors and that IQs obtained from different tests may not be directly comparable.

It should be pointed out that aside from the question of the constancy of the IQ, there is a theoretical objection to the use of mental ages and IQs for purposes of expressing the test results of persons who are above average and are mentally mature. This group would, of course, include many students in college, and even a considerable number in the last two years of the secondary school. Mental ages begin to level off during adolescence, and there are no significant increases of mental age with chronological age at the adult level.

The limitations to the use of mental ages and intelligence quotients in connection with tests given to these students have been stated clearly by Thurstone and Thurstone, as follows:

> The intelligence quotient is, by definition, the ratio of the mental age to the chronological age. The mental age of a test performance is the chronological age for which the test performance is the average. It follows from this definition that mental ages and intelligence quotients are indeterminate for the upper half of the adult population. If a person scores above the average for adults in a psychological examination, then there exists no age for which his score is the average. College students can be assumed to score above the average for the adult population of the country and, consequently, they cannot be assigned any mental ages or intelligence quotients. This is not a debatable question. It is a question of very simple and straightforward logic.
>
> Intelligence quotients are assigned to the upper half of the adult population by changing the definition of mental age. For example, a mental age of 15 or 18 does not mean the average test performance of people of that age. Such mental ages are arbitrary designations of what the test author may choose to call superior adult performance.[5]

While it must be admitted that the IQs obtained for the more mature and the brighter pupils are not true intelligence quotients according to the strict meaning of the term, their use at the secondary school level may still be defended if, through serving as indices of brightness, they help teachers and counselors in differential instruction and guidance of the pupils.

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[4] For a comprehensive summary of the points of view and of the literature on this question see *Intelligence: Its Nature and Nurture*. National Society for the Study of Education, Yearbook 39, Parts I and II. Bloomington, Illinois: Public School Publishing Company, 1940.

[5] L. L. Thurstone and Thelma Gwinn Thurstone. *Psychological Examinations, 1941 Norms*. Washington: American Council on Education Studies, VI (May 1942), 2.

## TESTS OF GENERAL ACADEMIC APTITUDE

### TESTS YIELDING ONE MENTAL AGE AND INTELLIGENCE QUOTIENT

As already indicated, the oldest and best known type of intelligence or scholastic aptitude test is the kind which provides a single score which is translated into a mental age which is, in turn, divided by a chronological age to find an IQ. An individually administered test, such as the Terman-Merrill Revision of the Stanford-Binet Scale,[6] is usually regarded as the best single measure of intelligence or academic aptitude, and it is highly desirable for a guidance department to have some member of its staff trained to administer, score, and interpret the scores of this kind of examination. However, few schools have the time and clerical assistance to use individual tests with all pupils. In the usual school situation, such tests should be reserved for use with special and doubtful cases, and it will be necessary to resort to group tests (tests which may be administered to a group of individuals at the same time) for the measurement of the academic aptitude of the entire school population.

There are several group tests of this type which have about equal merit. Two of the simplest and most widely used are the Otis Self-Administering Test of Mental Ability and the Otis Quick-Scoring Mental Ability Test. The second test is a revision and extension of the first one and probably it should be preferred, since it includes a few more items, covers a wider range of grades, and is more easily scored, particularly if machine scoring services are available.

The Kuhlmann-Anderson Tests, which consist of a series of overlapping batteries extending from the kindergarten to the adult level, are in some respects preferable to the Otis tests, for they represent a somewhat better balance of verbal, numerical, and spatial material, and the fact that there is a different battery for each grade probably results in better adjustment of the test items to the age level of the pupils. These tests must be carefully administered, however, because each booklet contains a large number of subtests, each of which has short time limits. The scoring procedure is also somewhat more difficult and time-consuming than that required by most group intelligence tests.

Other well-constructed and widely used tests of general scholastic aptitude are the Henmon-Nelson Tests of Mental Ability; the Pintner General Ability Tests: Verbal Series; the Terman-McNemar Test of Mental Ability; the Ohio State University Psychological Test; and the Kuhlmann-Finch Intelligence Test. The last series of tests is of interest, since it was planned as an adaptation for group testing of the individual Kuhlmann-Binet Test.

In Great Britain, the Moray House Intelligence Tests are widely used with school children. These tests, which were originally prepared for use with pupils of ages 11 and 12 in order to help in deciding upon the kind of secondary education for which they were best suited, are largely verbal in nature. In general appearance and item type, the Moray House tests bear some resemblance to the Otis Self-Administering Tests of Mental Ability.

A new kind of test of general mental ability has made its appearance in recent years. This is the culture-free, or culture-fair, test which represents an attempt to provide test items on which pupils with equivalent ability may be expected to perform equally well, regardless of the home background and general environment from which the pupil comes. The Davis-Eells Games and the IPAT Culture-Free Test represent different approaches to the problem of providing intelligence tests which are as fair to one social and economic group as they are to another. The idea behind the kind of test termed culture-free has wide appeal, but the rationale on which these tests are based should be carefully examined, and research needs to be carried on to determine whether the culture-free test does a better, or even a noticeably different, job of predicting success than is done through the use of more conventional measures of mental ability.

### TWO-AXIS TESTS

While tests yielding one mental age and intelligence quotient continue to be more extensively employed than any other type of test of academic aptitude, there is a growing tendency among guidance specialists to prefer scholastic aptitude tests which are to some extent diagnostic (75). For example, information concerning a pupil's aptitude in terms of language and nonlanguage factors is definitely helpful in both educational and vocational guidance especially where reading difficulties or language handicaps are involved. The California Test of Mental Maturity represents an attempt to meet the need for this type of instrument. This test is available in a short form, requiring approximately one class period, and in a longer form, calling for two periods of working time. It provides mental ages and IQs for language and nonlanguage factors and total mental factors, as well as a more detailed profile which is intended to be diagnostic. The diagnostic sections, however, are not long enough to be very reliable.

Observation and research have indicated that two kinds of aptitude are related to success in a variety of school

[6] Detailed information concerning nearly all the tests listed in this section is given in the annotated list in the last part of this chapter.

subjects and vocations. These are verbal, or linguistic aptitude, and numerical, or quantitative aptitude. One of the oldest and best known among the tests of academic aptitude, the American Council on Education Psychological Examination, yields an L-score, or score for linguistic ability, a Q-score, or score for quantitative ability, and a total score, as well as scores on certain subtests within the linguistic and quantitative areas. There is a high school edition for Grades 9 to 12 and a college freshman edition. The ACE Psychological Examination, with new forms appearing periodically, has been in use for so many years that it has come to be regarded as a kind of standard in the appraisal of scholastic aptitude, particularly at the point of transfer from high school to college. It appears, nevertheless, that this long-established examination may in time gradually be replaced by a new series, the Cooperative School and College Ability Tests, issued by the same publisher, the Educational Testing Service. The new tests, likewise, provide separate verbal and quantitative scores, as well as a total score. The successive levels of this series are planned to cover the range from Grade 4 through the college sophomore year.

The Secondary Education Board Junior Scholastic Aptitude Test provides for the measurement of verbal aptitude and numerical aptitude in Grades 7, 8, and 9. It is used as a basis of entrance, placement, and guidance in a large number of independent schools. The Scholastic Aptitude Test of the College Entrance Examination Board, which has long been used as a college entrance test for high school seniors, also gives a verbal score and a mathematical score.

An extensive new series of tests of abstract intelligence, the Lorge-Thorndike Intelligence Tests, consists of five levels covering the range from kindergarten to college freshman. The three higher levels, which, taken together, extend from Grade 4 through Grade 13, are available in both a verbal battery and a nonverbal battery. The verbal and nonverbal series are published in separate booklets, but they may be used together to provide language and nonlanguage scores somewhat similar to those obtained with other so-called two-axis tests.

## TESTS YIELDING SEVERAL APTITUDE SCORES

Since about 1935, the perfection of factor-analysis techniques and concomitant theoretical considerations have led to the development of several mental ability tests which are intended to be more highly diagnostic and which have important potential values for guidance. The Chicago Tests of Primary Mental Abilities, published in 1941, are a revised and shorter version of the Thurstone Tests for Primary Mental Abilities which were first published in 1938 and which were the result of several years of intensive work in factor analysis. They provide fairly independent measures of six mental factors.

The SRA Primary Mental Abilities, a series of overlapping batteries covering the range from age 5 through age 17, are a still briefer version of the Thurstone tests. Each battery provides scores for five mental factors and is intended for administration within an hour or less. As the length of the primary mental abilities tests has been reduced to accord with the testing conditions of the classroom, the influence of rate of work on the results has naturally been increased.

Another modern battery of the diagnostic, or profile, kind is the Differential Aptitude Tests, or DAT, which consist of seven booklets yielding a total of eight scores. The entire battery calls for about four hours of administration time, but the different booklets may be used as units without reference to the others, if desired.

The Yale Educational Aptitude Tests, issued by A. B. Crawford and Paul S. Burnham, are an extensive battery including seven tests published in two large booklets with three tests in one booklet and four in the other. They are designed to measure verbal comprehension, artificial language, verbal reasoning, quantitative reasoning, mathematical aptitude, spatial visualizing, and mechanical ingenuity. The total working time for this battery is 5 hours, 15 minutes, not counting the time for directions or practice tests. These tests reflect power of thinking.

The Holzinger-Crowder Uni-Factor Tests are a new battery consisting of nine tests and yielding scores on four factors: verbal, spatial, numerical, and reasoning. This appears to be a particularly useful new battery for the measurement of scholastic aptitude of junior and senior high school pupils.

There is need for research with all these test batteries that are designed to make diagnostic measurements of mental functions. Their guidance possibilities are great, but evidence concerning the meaning and value of the scores is still not extensive, except in the case of the Differential Aptitude Tests for which a large amount of research data has been reported by the test authors. In general, counselors and teachers may use the scores from these various test batteries experimentally, but until further studies are available, predictions based on them must be made with the understanding that such predictions grow out of logical assumptions concerning the relationship of the profile scores to criteria of success rather than out of objective evidence that such relationships exist.

## TESTS OF APTITUDE IN SPECIAL FIELDS

General academic aptitude tests have important implications for appraisal of aptitude in special fields. In

fact, if we had extensive and detailed knowledge of the relationship of the various scores on the Differential Aptitude Tests, the Chicago Primary Mental Abilities Tests, the Yale Educational Aptitude Tests, or the Holzinger-Crowder Uni-Factor Tests to success in different special fields, we would have an excellent basis for differential prediction and guidance. It is not too much to expect that such tests will some day largely supersede the aptitude tests designed for individual fields, except perhaps in such a highly specialized area as music. For the present, however, aptitude tests designed for specific fields should have a place in a guidance program, although, on the whole, such tests are less satisfactory for their purposes than general academic aptitude tests are for the purposes for which they are designed.

One reason why tests of aptitude in specific fields are not highly satisfactory is that usually they are designed according to different patterns and standardized on widely different populations, or, in the case of certain tests, hardly standardized at all. Thus there is no adequate basis of comparison between the results of tests in separate areas, and it is often difficult for a counselor to decide in which of several areas an individual possesses the greatest aptitude even when a variety of test scores is available.

The appraisal of aptitude in special fields can be made on a fairly broad basis or it can be highly specific. One can, for example, test individuals for mechanical aptitude or for any one of the hundreds of occupations within the field of mechanics. For placement of workers in jobs, industrial establishments can well use tests of the latter type, but for purposes of a long-term guidance program, such tests would be almost worthless. Even if valid tests for all occupations were available, no guidance department could give more than a few of them to any individual, and the problem of selecting the most appropriate ones would involve a large element of subjective judgment concerning the aptitude of the individual concerned. Moreover, the occupations for which many of the tests were designed would include closely similar abilities, and thus the correlation would be too high for the tests to be of much use in differential guidance. Consequently, if a guidance department is going to employ tests of specific aptitudes, it needs to select and use a relatively small number of tests covering fairly broad functions. The guidance department should be acquainted with the administration, scoring, and interpretation of one or more tests in the fields of art, music, scientific aptitude, manual and mechanical aptitude, clerical aptitude, and perhaps aptitude for certain school subjects, such as algebra, geometry, and foreign languages.

Guidance officers should also be on the lookout for batteries of aptitude tests standardized on the same, or closely similar, populations. Few batteries of this kind have thus far been published. One such battery of recent origin is the Flanagan Aptitude Classification Tests, or FACT. Another is the General Aptitude Test Battery prepared by the United States Employment Service. Still others are the Aptitude Tests for Occupations, devised by Wesley S. Roeder and Herbert B. Graham, and the Multiple Aptitude Tests prepared by David Segel and Evelyn Raskin. The last two series of tests are recent publications of the California Test Bureau. All these batteries are aimed primarily at vocational placement, but they also have potential values for educational guidance.

## ART

Three of the better-known art tests are the Knauber Art Ability Test; the Meier Art Test, Test 1, Art Judgment; and the Lewerenz Tests in Fundamental Abilities of Visual Arts. The first test is, as the name implies, designed to measure ability in art, and it appears to be rather difficult for the beginner. The second test is planned to measure judgment of artistic production. Both these tests are planned for use from Grade 7 upward. The Lewerenz tests consist of a battery of nine brief tests and are potentially somewhat more diagnostic than the other two, although the part scores are probably not very reliable because of the brevity of the parts.

The three art tests named in the preceding paragraph have been available for 20 years or more. A newer test in this field is the Graves Design Judgment Test, published in 1948. This test may be used from the junior high school through the college and adult levels.

## MUSICAL APTITUDE

The Seashore Measures of Musical Talents have long been one of the standard procedures for the appraisal of aptitude for music. The revised edition was published in 1939. The fact that a record player is required, and further that it is not practicable to test a large number of pupils simultaneously, has prevented the use of these measures in some schools. The Kwalwasser Test of Music Information and Appreciation and the Kwalwasser-Ruch Test of Musical Accomplishment are well-known paper-and-pencil tests of the group type.

The Wing Standardized Tests of Musical Intelligence, issued in England in 1948, are similar in some respects to the Seashore tests. These tests, which are on ten records, provide seven subscores and a total score. The Whistler-Thorpe Musical Aptitude Tests, Series A, are a comparatively recent set of measures of potential ability to learn music. A piano is required for administration.

## SCIENTIFIC APTITUDE

Aptitude for scientific work may be inferred to some extent from general academic aptitude tests which provide a basis for diagnosis, such as the Yale Educational Aptitude Tests or the Differential Aptitude Tests. One of the few tests designed especially for the measurement of aptitude for science is the Stanford Scientific Aptitude Test. This test was published some 25 years ago but still has considerable use in high schools and colleges.

## TESTS OF MANUAL AND MECHANICAL APTITUDE

Some of the tests of manual and mechanical skill are individual tests which are administered through the use of special equipment. Among the tests of this type are the Tweezer Dexterity Test and the Wiggly Block Test, designed by Johnson O'Connor, and the Minnesota Manual Dexterity Test. Such tests are appropriate for use with special cases which are being studied intensively, but the general measurement program for guidance purposes will make more use of paper-and-pencil tests which can be administered to groups of pupils.

The MacQuarrie Test for Mechanical Ability, the Stenquist Mechanical Aptitude Test, and the Detroit Mechanical Aptitudes Examination are among the oldest and most widely known group tests in this field. Three somewhat newer tests are the Revised Minnesota Paper Form Board Test, which is primarily a test of space perception, the Bennett Mechanical Comprehension Test, and the Wrightstone-O'Toole Prognostic Test of Mechanical Ability. Data in the files of the Educational Records Bureau indicate that the Minnesota and Bennett tests measure aspects of mechanical aptitude which are fairly independent of one another (71). The correlation between the scores on these two tests was found to be about 0.4. It would seem, therefore, that the Revised Minnesota test and the Bennett test might be used to supplement one another in the same program. The Wrightstone-O'Toole Prognostic Test of Mechanical Abilities provides scores for five abilities believed to be related to success in mechanical work.

The correspondence between scores on these tests, or any other tests of mechanical aptitude, and success in mechanical work probably varies considerably with the kind of job. It would seem desirable to administer more than one type of mechanical aptitude test and to keep a record of the value of the scores in predicting success in different employment situations.

## CLERICAL APTITUDE

The Minnesota Clerical Test is probably the best known and most extensively used paper-and-pencil measure of clerical aptitude. This is a rather simple test based on number checking and name checking, but because of the extensive norms now available, it is one of the most useful tests in this area. Another test in the clerical field which has been available for many years is the Detroit Clerical Aptitude Examination which has eight brief parts and calls for 30 minutes of working time.

More recent tests of aptitude for clerical work are the General Clerical Test, issued by The Psychological Corporation, and the SRA Clerical Aptitudes test. Both these tests are considerably more elaborate than the Minnesota Clerical Test, but the norms are not so extensive.

## APTITUDE FOR PROFESSIONS

Aptitudes for different professions may be inferred, to some extent, from aptitude test batteries, such as the Yale tests and the Differential Aptitude Tests. Aside from these measures, various tests have been devised to measure aptitude for different professions. Several of these test batteries are under the general control of professional associations in their respective fields and are administered by the Educational Testing Service in controlled programs of testing for admission to professional schools. Among these are the Medical Aptitude Examinations, the Law Aptitude Examinations, and the Pre-Engineering Inventory. The National Teacher Examinations (55), another program administered by the Educational Testing Service, explore both the aptitude and achievement of candidates for teaching positions. Two professional testing programs administered by other organizations are the veterinarian testing program carried on by The Psychological Corporation, and the nursing aptitude examinations sponsored by the National League for Nursing Education.

A testing program for the field of accounting was developed by the American Institute of Accountants after several years of research and is administered by the Educational Records Bureau. This program consists of a college testing program and a professional testing program for employees or potential employees by accounting firms. An Orientation Test, two levels of Achievement Tests, and the Strong Vocational Interest Blank, for which special norms for accountants have been developed are used in the college and professional testing programs (78). A more recent development in this program was the preparation of an Accounting Orientation Test for High School Pupils which is generally available as a counseling instrument in any high school (34).

## APTITUDE FOR SCHOOL SUBJECTS

More attention seems to have been given to the measurement of aptitude for mathematics and for foreign lan-

guages than for any of the other school subjects. For the appraisal of aptitude for mathematics, there are the Iowa Algebra Aptitude Test, the Iowa Plane Geometry Aptitude Test, the Lee Test of Algebra Ability, the Lee Test of Geometric Aptitude, the Orleans Algebra Prognosis Test, and the Orleans Geometry Prognosis Test. Two rather widely used tests of foreign language aptitude are the Luria-Orleans Modern Language Prognosis Test and the Symonds Foreign Language Prognosis Test. All these tests were published a good many years ago, although the Orleans Algebra Prognosis Test and the Orleans Geometry Prognosis Test were revised fairly recently.

There are comparatively few aptitude tests in the field of the business subjects. The Turse Shorthand Aptitude Test is a rather well-known measure of the aptitude of prospective stenography students. Another test in this field is the Stenographic Aptitude Test by Bennett.

While the small amount of research data available for the various tests of aptitude for school work indicates that the scores on these tests are significantly correlated with success in the subjects for which the tests are designed, a limiting factor in all these tests is that each is an independent unit, and it is difficult to make valid comparisons from one test to another and thus to predict relative success in the different subjects which a pupil might choose to study. From this standpoint, tests of aptitude for school subjects are less satisfactory than achievement tests which are part of a comprehensive battery, such as the Coöperative tests, and which yield derived scores of the type known as Scaled Scores, thus rendering comparability among the different tests possible. Moreover, it has not yet been established by research that the results of tests designed to measure aptitude in some of the specific subjects or fields have significantly greater relationship to success in those areas than have the results of tests of general academic aptitude.

On the whole, tests designed to show aptitude for specific aspects of school work may play a useful role in a guidance program, but it is a less important role than that taken by tests of general academic aptitude and by achievement tests.

The point will bear emphasis that tests of general academic aptitude, tests of specific aptitude, and achievement tests have many elements in common and that all three types have values for prediction in specific fields. As Coleman and Cureton (15) have shown, the overlap between the functions measured by a good school achievement test of reading and arithmetic and a typical group intelligence test is about 95 percent. In their use of all types of tests, counselors and other school people should constantly be on guard against the "jangle fallacy," or the tendency to apply different names to tests which in reality measure essentially the same abilities.

## DISTINCTION BETWEEN APTITUDE AND ACHIEVEMENT

The next chapter will be concerned with the measurement of achievement for guidance purposes. Well-defined thinking concerning the evaluation of aptitude and achievement requires an understanding of the relationship between these two terms. It is sometimes thought that aptitude and achievement have wholly separate origins. Aptitudes are naïvely assumed to be inborn characteristics, while achievements are regarded as the product of training, whereas the two simply represent different emphases upon native ability and training. One's aptitudes are one's potentialities for success in given areas, but these depend on both inborn characteristics and experience. As indicated at the beginning of this chapter, it is not possible to separate the influences of heredity and environment upon aptitude, nor would this kind of separation necessarily be of practical importance in the prediction of success, even if it could be made. Similarly, one's achievement is the level of skill, knowledge, and understanding one has attained in a given field, and, as is true of aptitudes, this level depends upon a complex of inborn traits and experiences which do not yield themselves to precise analysis.

Both the difference and the similarity between aptitude and achievement may be clarified by noting the procedures we use in attempting to make evaluations in each field. When evaluating aptitude, we try to place the emphasis upon native capacity by posing problems in which the individual has had no formal training. When evaluating achievement, we attempt to emphasize training by formulating tasks dealing with materials similar to those he has studied or with which he has had experience. For example, we often base the evaluation of numerical aptitude partly upon a test of number series, which, as a rule, is not taught in the mathematics curriculum; in the evaluation of achievement in mathematics, on the other hand, one of the common tests is concerned with speed and accuracy in computation, which is taught in the mathematics course.

Achievement tests are, however, sometimes used as indicators of aptitude. For instance, arithmetic test scores often serve as a useful basis for estimating aptitude for higher mathematics, and reading comprehension test scores have considerable value in predicting aptitude for the study of foreign languages.

It is to be noted further that when we are dealing with aptitudes for a certain field, or with achievement in a given area, we are concerned not only with a combination of aptitudes and achievement, but also with a complex of both aptitudes and achievements. So-called

mechanical aptitude, for instance, brings into play a number of discrete aptitudes—space perception, mechanical ingenuity, muscular coördination, and so forth—and a variety of achievements—familiarity with mechanical materials, skill in handling various tools, and other acquired reactions. It is true, as indicated in considerable detail elsewhere in this chapter, that instruments have been made available for the measurement of fairly pure "primary factors" and that further developments of that kind are to be expected, but in no field of human endeavor is success dependent upon just one of these factors. One always brings a combination of aptitudes and achievements to bear upon any major undertaking.

Supplementing aptitude tests and achievement tests, there is a kind of in-between category which includes so-called ability tests. In general, these tests have more elements in common with aptitude tests than with achievement tests, but they are likely to contain a larger proportion of items that may be directly influenced by classroom instruction than is true of the usual aptitude test. Since there is no clear dividing line between aptitude tests and ability tests, some tests which carry the word "ability" in their titles are included in this chapter.

## ANNOTATED LIST OF APTITUDE TESTS

In the annotations of the tests in this list, an attempt is made to provide evidence concerning the reliability and validity of the tests if such data are available. Correlation coefficients reported in this way should be regarded as indicative of the worth of the tests only in general terms. Space limitations render it inadvisable to try to report in detail the technique used in finding the correlations or the grade ranges involved, both of which are likely to have an important effect upon the magnitude of the correlation coefficients. In the case of certain widely used tests, it is possible to report here, even in very abbreviated summary fashion, only a small fraction of the extensive research data that have been reported for these tests. While an effort is made to utilize a wide range of studies reported in educational and psychological literature, frequent reference is made to data in the files of the Educational Records Bureau, partly because the Bureau has made a good many studies of particular tests and partly because the writer is well acquainted with that series of reports.[7]

*American Council on Education Psychological Examination,* by L. L. Thurstone and Thelma Gwinn Thurstone, and staff of Educational Testing Service. Princeton, N.J.: Educational Testing Service, 1947–54. (Editions from 1924 through 1946 issued by American Council on Education, Washington, D.C.) Booklets, college freshman edition, \$2.95 per 25; high school edition, \$2.75 per 25; separate answer sheets, either edition, \$1.00 per 25; scoring stencil, either edition, set of two, 25 cents; speciman set, 50 cents each.[8]

*College Freshman Edition.* A new form of this test was issued annually from 1924 through 1949, after which 1952 and 1954 editions were published. The 1940 to 1954 editions are closely comparable. Each consists of six subtests. The number series, arithmetic reasoning, and figure analogies subtests are combined to form a *quantitative* subtotal; those on the completion, same-opposite, and verbal analogies sections are added to obtain a *linguistic* subtotal. These editions are administered with separate answer sheets which may be scored either manually with a stencil or by machine. All editions prior to the 1947 edition are out of print. The actual testing time for the ACE is 38 minutes, but about one hour is required for the entire examination, including practice tests. This examination may eventually be replaced by newer tests, but it has had an important place in the history of measurement in the United States.

The examination has probably been the measurement instrument most widely used with college freshmen. The norms for the 1952 edition are based on the scores of 42,332 freshmen in 269 colleges. Since 1932, the college edition has been used in Grades 9–12 of the independent schools participating in the Educational Records Bureau testing program, and independent school norms are available for all editions. The ACE does not yield an IQ, but the Educational Records Bureau has a procedure for deriving an IQ indirectly through equating it with the Otis test. Various studies indicate that split-half reliabilities of the total score are .95 to .97; reliability of Q-score, 1946 edition, for independent school twelfth-grade pupils, .92, L-score, .95; correlations between ACE and College Board Scholastic Apti-

[7] With the exception of tests published since 1952, the majority of the tests annotated in this chapter and the two following ones are reviewed in Buros' *Third and Fourth Mental Measurements Yearbooks* (10, 11). For some of the tests listed, certain Buros reviews are specifically cited as references. In the case of many other tests, excellent reviews in the Buros books are not given as references in the annotations, since the present writer has had so much experience with the tests involved that he has not had occasion to refer to the Buros reviews of those particular tests. Hence, it is not to be inferred that comments by Buros reviewers which are specifically mentioned in the annotations are necessarily better than those not so mentioned.

[8] In the annotations of tests listed in this chapter and the next two chapters, prices are given. These are prices quoted in publishers' catalogs or obtained from publishers by telephone or correspondence during the year 1956. These are not guaranteed to users of this book as the correct prices over a period of time. It is well known that prices of tests, like those of all other commodities, vary as the economy fluctuates upward or downward. Nevertheless, even though the exact prices may become out of date as time passes, it was felt that it would be helpful to users of this book if they could have available figures which would enable them to draw inferences about the *relative* costs of the tests listed.

tude Test, ACE L-score vs. SAT Verbal, .76, ACE Q-score vs. SAT Mathematical, .65 (73). Buros cites 276 studies of ACE. For more recent studies, see Buros (*11*:374–377). For norms, see reports published by Educational Testing Service and independent school norms issued by Educational Records Bureau.

*High School Edition.* Editions published annually, 1933–36, 1938–42, and 1944, 1946, 1947, 1948, and 1953. The last four forms are active. The test has four parts: completion, arithmetic, number series, and same-opposite. Linguistic subtotal (L-score) consisting of completion and same-opposite; quantitative subtotal (Q-score) consisting of arithmetic reasoning and number series, as well as usual part and total scores, available in current editions. All active editions are machine scorable. Working time, 35 minutes, but directions and practice exercises extend time to full class period. Percentile norms for each public school grade from 9 through 12 based on total sample of 19,500 cases. Equivalent scores for current high school editions and for 1946 college edition are available. There are no independent school norms for high school edition. In contrast to the numerous studies of the college freshman edition, few studies of high school edition have been reported. Medians of reliability coefficients for twelfth grade pupils reported in manual of directions as follows: L-score, .89; Q-score, .88; total score, .92 (1).

*Army General Classification Test,* First Civilian Edition. Chicago: Science Research Associates, 1947. For hand scoring: reusable test booklets, Form AH, 49 cents each; self-scoring pin-punch answer pads, $2.05 per 20; specimen set, 75 cents. For machine scoring: reusable test booklets, Form AM, 49 cents each; answer sheets, $3.85 per 100; scoring keys, 50 cents each; specimen set, 75 cents.

Developed during World War II to classify service personnel according to ability to learn. Includes a broad sampling of abilities. Suitable for use with high school pupils, college students, and adults. Administration time, 50 minutes. May be used to predict school and college success. Norms for 125 civilian occupations are available.

*California Test of Mental Maturity,* by Elizabeth T. Sullivan, Willis W. Clark, and Ernest W. Tiegs. Los Angeles: California Test Bureau, 1936–51. $4.90 per 35 copies of regular edition which requires approximately two class periods for administration; $2.80 per 35 copies of short form which can be administered within one class period; 4 cents per machine-scorable answer sheet; 50 cents per specimen set of one edition at any one level.

One of the more modern intelligence tests in which an attempt is made to secure a diagnostic measurement of mental functions. Includes five main parts: memory, spatial relations, logical reasoning, numerical reasoning, and verbal concepts, each of which contains a number of subtests. Yields three intelligence quotients: an IQ for language factors, an IQ for nonlanguage factors, and the usual type of IQ based on total score. Five levels: Kindergarten-Grade 1, Grades 1–3, Grades 4–8, Grades 7–10 and Adult, Grade 9 to Superior Adult. Reliability of longer edition, advanced battery, as reported by authors: total mental factors, .96; language factors, .94; nonlanguage factors, .93. Reliability reported in study in *Journal of Educational Research* (69) using the scores of ninth-grade boys in an independent school: total mental factors, .92; language factors, .91; nonlanguage factors, .86. Reliability of intermediate battery, as given in manual, based on results for 400 pupils in Grades 7 to 9 inclusive: total mental factors, .94; language factors, .93; nonlanguage factors, .89. Reliability for one group of independent school pupils in Grades 9–12: total mental factors, .86; language factors, .82; nonlanguage factors, .76 (17). A study of the value of the California Short Form Test of Mental Maturity for predicting school marks of independent school pupils, as compared with Kuhlmann-Anderson Intelligence Test, the Junior Scholastic Aptitude Test, and the ACE Psychological Examination, indicates that the California test predicts school marks about as well as each of the other three tests (76). Correlations of California total mental factors with ACE Psychological Examination total scores for an independent school population: Grade 9, .75; Grade 10, .79; Grade 11, .86; Grade 12, .77 (49). *References:* (23), Clark (14), Buros (*11*:381–383).

*College Entrance Examination Board Scholastic Aptitude Test,* prepared by College Entrance Examination Board, New York, N.Y., and the Educational Testing Service, Princeton, N.J. Various editions issued from 1926 to the present. A carefully controlled test available only in CEEB admissions testing program.

The Scholastic Aptitude Test is the most extensively used test in the CEEB program. It yields two scores, verbal and mathematical, resulting from five 35 minute subtests, three of which are verbal and two mathematical. Working time, 175 minutes; overall time, 210 minutes. Items carefully constructed and validated. Much research has been done on SAT, but large proportion of data is unpublished. Such data as are available indicate that SAT compares favorably with the better tests commercially available, although it does not appear that this examination is superior, from the standpoint of reliability and validity, to the best of the scholastic aptitude tests which may be purchased directly from test publishers. *References:* Buros (*11*:383–384).

*Cooperative School and College Ability Tests,* by the staff of the Cooperative Test Division, Educational Testing Service, Princeton, N.J., 1955–56. Test booklets, either level, $3.25 per 25; answer sheets, $1.25 per 25; scoring keys, 35 cents per set; examiner's manual, $1.00; specimen set, $1.50.

There are two levels of this recently published test, one for secondary schools and one for colleges; lower level tests which will extend this series of tests down to Grade 4 are

soon to be published. At present, there are two forms of the secondary school level and four forms of the college level, two of which are reserved for college use and two of which are available for use in testing programs in secondary schools enrolling pupils of high ability, such as those participating in the Educational Records Bureau program. Each test consists of four parts, two verbal and two quantitative. The total working time is 70 minutes.

Reliability and validity data are presented in an extensive manual, which appropriately stresses the concept that a test score is not to be regarded as a precise point but rather as a fairly wide band. The publisher anticipates that the Cooperative School and College Ability tests will gradually replace the ACE Psychological Examination issued by the same publisher, but it remains to be seen whether this test will be an adequate substitute for the time-tested ACE. Two studies based on results among independent school pupils indicate that the SCAT Level 1 is about equal in difficulty to the ACE college edition, is slightly less reliable than the ACE, and is on the whole a little more closely correlated with school marks than the ACE (50, 77).

*Davis-Eells Test of General Intelligence or Problem Solving Ability (Davis-Eells Games)*, by Allison Davis and Kenneth Eells. Yonkers, N.Y.: World Book Company, 1952. Primary test, $4.00 per 35; elementary test, $4.45 per 35; manual, 80 cents; specimen set, 35 cents each test.

This test is designed to provide a "culture-free" or "culture-fair" test of intelligence or problem-solving ability. Problems believed to be realistic and not to favor one cultural background over others are presented in a series of pictures shown in the test booklet. Directions are given orally, and thus differences among the pupils in reading ability are eliminated from the results. Two levels, primary for Grades 1 and 2 and elementary for Grades 3–6. At present, Form A is the only form available at each level. Working time: primary test, Grade 1, two 30-minute periods; Grade 2, three 30-minute periods; elementary test, two 50–60 minute periods. The test yields a total score and an index of problem-solving ability (PSA), which is roughly comparable to an IQ. At present, reliability and validity data seem not to be available for this test.

*Differential Aptitude Tests*, by George K. Bennett, Harold G. Seashore, and Alexander G. Wesman. New York: The Psychological Corporation, 1947. Seven test booklets, with prices as follows: in one to three packages of 25: verbal reasoning, $3.00; numerical ability, $2.25; abstract reasoning, $3.00; space relations, $3.50; mechanical reasoning, $3.75; clerical speed and accuracy, $3.00; language usage, $3.00; answer sheets, $1.85 per package of 50; scoring stencils (hand or machine), $1.25 per set; individual report forms, $1.25 per package of 50; interpretative manual, $2.00; specimen set, including interpretative manual, $3.00, without manual, 35 cents.

The Differential Aptitude Tests are a comprehensive, carefully prepared, and relatively new test battery. These tests exist in Forms A and B. Each form yields eight scores, one score for each of the first six booklets, and two scores, spelling and sentences, for the languages usage booklet. This battery is not derived from factorial analysis studies, but rather it represents an attempt to provide an integrated set of tests that will have practical usefulness in educational and vocational guidance. Designed for Grades 8 through 12. Working time, 25 to 35 minutes per booklet, except clerical speed and accuracy, which calls for only six minutes of working time. Total time for the battery, including time for directions and so forth, probably about four hours. The interpretative manual is exceptionally thorough, particularly from the standpoint of amount of statistical data included. The authors are to be commended for their care in reporting a wealth of data on reliabilities, intercorrelations, means, and standard deviations on these tests. More assistance could be given to schools in the interpretation of these statistical data. Reliabilities (split-half), except for highly speeded clerical test, range from .86 to .93 based on data given in manual (22). Reliabilities based on scores of group of independent school eighth grade boys were found to range from .71 to .95 (67). In the same study, the median of the intercorrelations on the parts of the battery, corrected for attenuation, is only .42, which indicates, on the whole, a moderate degree of independence among the different tests. *References:* (22, 25) and Buros (11:676–681).

*Factored Aptitude Series*, by Joseph E. King. Tucson, Ariz.: Industrial Psychology, Inc. 1947–50. 20 cents per copy of any one test.

This series of tests is designed for adults but may possibly be considered for vocational guidance in schools. The 14 tests are as follows: office terms, sales terms, tools, judgment, numbers, perception, precision, fluency, memory, dimension, parts, blocks, dexterity, and motor. One form. Working time five minutes for each test except fluency and motor, which require six minutes each and dexterity, which takes three minutes. Raw scores are converted to stanines. Caution seems advisable in the use of this test series at present, since reliability and validity data for the different parts are limited or nonexistent. The tone of the handbook seems to be more nearly that of sales promotion than of objective evaluation. The tests are attractively printed. *References:* King (37) and Buros (11:681–683).

*Flanagan Aptitude Classification Tests (FACT)*, by John C. Flanagan. Chicago: Science Research Associates, 1953. Fourteen separate booklets. Cost of each booklet per package of 20, $2.55; specimen set, $3.00; examiner's manual, 30 cents.

A comprehensive series of aptitude tests designed for use from the high school to the adult level. The 14 test booklets are as follows: inspection, coding, memory, precision, assembly, scales (reading scales, graphs, and charts), coördi-

nation, judgment and comprehension, arithmetic, patterns, components, tables, mechanics, and expression (English usage). Form A available; alternate forms in preparation. Working time per individual test, from five to 40 minutes; total time for entire battery, if set up in four sessions with two 10-minute breaks between each two sessions, about five hours and 28 minutes. Hand scoring by means of self-scoring grid. Results reported in terms of stanines. Norms based on 1500 high school seniors. Aptitude classification sheet available for use in apprising aptitude scores in relation to different occupations. A well-constructed test series. *Reference:* (28).

*General Aptitude Test Battery, B-1002: Separate Answer Sheet Form.* Washington: U. S. Employment Service, Bureau of Employment Security, U. S. Department of Labor, 1952. The General Aptitude Test Battery is not on general sale. Inquiries concerning its use should be addressed to the United States Employment Service.

A revision of the GATB published in 1946–47. A unified battery of aptitude tests intended primarily for use with job applicants who have not had much experience. Two forms, A and B. The battery consists of 12 tests selected to measure nine aptitudes important for success in wide variety of occupations. Eight of the tests are paper-and-pencil tests and are issued in three booklets. The other four are apparatus tests. The tests are (1) name comparison, (2) computation, (3) three-dimensional space, (4) vocabulary, (5) tool matching, (6) arithmetic reasoning, (7) form matching, (8) mark making, (9) place, (10) turn, (11) assemble, and (12) disassemble. The aptitudes measured are G-intelligence, V-verbal aptitude, N-numerical aptitude, S-spatial aptitude, P-form perception, Q-clerical perception, K-motor coördination, F-finger dexterity, and M-manual dexterity. Total administration time, 2¼ hours. Raw scores are converted into standard scores for the various aptitudes. Norms for many different groups have been prepared. Individual profile cards are available for recording standard scores. These scores may be matched against minimum scores for different occupational aptitude patterns. The occupational pattern structure is based on the *Dictionary of Occupational Titles.* Numerous statistical data are given in an extensive loose-leaf *Guide to the Use of GATB.* Median test-retest reliability about .82; median reliability derived from correlations between comparable forms about .83; reliability coefficients range from .54 to .96. Median of intercorrelations among aptitude scores about .32; range −.13 to .81. Some evidence of test battery validity has been obtained through correlation of test scores with criteria of academic or vocational success.

This test battery is available for use in nonprofit institutions in counseling, as well as by employers. Testing services are available from USES state and local offices, and these services are free when the United States Employment Service handles the program. Orders must be cleared through the USES offices. A highly useful test battery in vocational guidance of youth and adults.

*Henmon-Nelson Tests of Mental Ability,* by V. A. C. Henmon and M. J. Nelson. Boston: Houghton Mifflin Company, 1931–50. Elementary school examination, Grades 3–8, $1.20 per 25 tests; high school examination, Grades 7–12, self-marking edition, $1.20 per 25 tests; machine-scoring edition, $1.75 per 50 tests; $1.35 per 50 answer sheets; intelligence test for college students, Grades 12–16, $1.20 per 25; specimen set, 30 cents each examination. (A new revision by Tom A. Lamke was in preparation at the time this book was written and was to be available by January 1957. Nation-wide norms established in 1956.)

One of the older and more dependable group tests of mental ability of the single score type. Yields total score, mental age, and IQ. Forms A, B, and C of elementary and high school examinations; Forms A and B of college test. Each level contains 90 multiple-choice items including linguistic, quantitative, perceptual, and spatial material, with linguistic area weighted somewhat heavier than other areas. Working time, 30 minutes. Hand scoring is rapid as this is one of the tests in the Clapp-Young Self-Marking Series. High school level also available in machine-scoring edition. Split-half reliabilities of elementary and high school tests for single age or grade range cluster around .90, as indicated by data reported by test authors; reliability of college test based on correlation between Forms A and B, .89. Authors report correlation of .81 between elementary test and Binet-Simon. Correlations with other group tests of mental ability range from about .7 to .9 according to data given in teachers' manual. *References:* Henmon and Nelson (30) and Buros (*11*:397–401).

*Holzinger-Crowder Uni-Factor Tests,* by Karl J. Holzinger and Norman A. Crowder. Yonkers, N.Y.: World Book Company, 1955. Two forms, Am and Bm. Test booklets, $6.00 per 35; answer sheet 1, $2.25 per 35; answer sheet 2, $1.50 per 35; set of five right keys for hand scoring or machine scoring, 50 cents; set of three item-elimination keys for machine scoring, 30 cents; specimen set, 50 cents.

The late Professor Karl J. Holzinger and his associates carried on factor analysis studies for many years at the University of Chicago. The Uni-Factor tests are an outgrowth of those studies. They are designed to measure four factors: verbal, spatial, numerical, and reasoning. There are nine tests in the battery. An extensive manual of interpretation accompanies the tests. Grade range, 7–12; working time, 40½ minutes; overall time, two 45-minute periods. The tests yield grade level percentile norms for each factor, an overall score, and an IQ. A promising appearing battery for use in guidance at the high school level. Much statistical information on this new battery given in an excellent manual. Experimental data indicate that Forms Am and Bm are virtually equivalent in difficulty. Alternate form reliabilities range as follows: verbal, .799 to .934; spatial, .784 to .862; numerical, .872 to .951; reasoning, .758 to .901; medians of split-half reliabilities for verbal and reasoning factors: verbal, .93; reason-

ing, .93. Multiple correlation coefficients for factor scores and intelligence on six tests range from .709 to .857. Medians of correlations between factor scores and tests of achievement: verbal, 62; spatial, .33; numerical, .44; reasoning, 52; and between factor scores and teachers' marks: V, .57; S, 22; N, .46; R, .48 (31).

*IPAT Culture-Free Intelligence Tests,* by Raymond B. Cattell and A. K. S. Cattell. Champaign, Ill.: Institute for Personality and Ability Testing, 1949–50. Three scales: Scale 1, Ages 4–8, booklets, $3.50 per 25; scoring key, 25 cents; handbook, 50 cents; specimen set, 75 cents; Scale 2, Ages 8–13 and average adults, $3.30 per 25; answer sheets, $1.80 per 50; handbook, 70 cents; hand-scoring keys for test booklets, 50 cents each; hand-scoring keys for answer sheets, 50 cents each; specimen set, $1.40; Scale 3, Age 14-superior adults, same prices as for Scale 2.

These tests are somewhat similar to Cattell's Culture-Free Test formerly published by The Psychological Corporation but are more recent and briefer and are available in 3 levels instead of 1. The general purpose of these tests is similar to that of the Davis-Eells Games in that they are intended to provide measures of intelligence which are not influenced by environmental factors, such as home background and previous training. The Cattell tests are based largely on perceptual and spatial materials which are regarded as adequate samplings of "G," or general intelligence. These tests are considerably briefer than most tests of mental ability. Scale 1, of which there is only 1 form, requires 21 minutes of working time; Scales 2 and 3, each of which exists in 2 forms, A and B, call for 14 minutes of working time, including time for directions. Any of the 3 scales may easily be given in less than an ordinary class period. Separate answer sheets are available for Scales 2 and 3, each of which exists in 2 forms, A and B, call for 14 minutes of working time, including time for directions. Any of the 3 scales may easily be given in less than an ordinary class period. Separate answer sheets are available for Scales 2 and 3 but these are not adapted for IBM machine scoring. Each level of the test yields an IQ, but the norms for all 3 levels are based on rather small populations. Available reliability and validity data are meager. According to handbook for Scale 2, test-retest reliabilities based on 2 groups are .82–.85 and split-half reliabilities for 4 groups are .70–.92. In another report, correlation of Cattell IQs with grade point averages for 10 different groups range from .37 to .91, with an average of .51, and correlations of the Cattell with Otis Self-Administering Test of Mental Ability for same groups range from .34 to .90, with an average of .73. *References:* Buros (11:401–403); Cattell (12); and Cattell, Feingold, and Sarason (13).

*Junior Scholastic Aptitude Test,* by Bureau of Research, Secondary Education Board, Milton, Mass.; distributed and scored by Educational Records Bureau, 21 Audubon Avenue, New York City. $1.00 per individual for test material and scoring services; specimen set not available; no charge for descriptive leaflet and practice test.

An especially valuable test for admission, placement, and guidance in Grades 7, 8, and 9, particularly in independent, or private, schools. Based on extensive experimentation carried on by Bureau of Research of Secondary Education Board and by Educational Records Bureau. Present forms are DR, ER, and FR. Provides separate scores for verbal and numerical aptitude. No total score, mental age, or IQ. Results are expressed in terms of fall and spring percentiles derived from independent school population. Administration time, 81 minutes. Practice test used before regular test taken. Reliability: median split-half odd-even reliability for single grade range, verbal score, .94, numerical score, .93. Correlation of alternate forms, verbal, .87, numerical, .82. Correlation between verbal and numerical scores, .57. JSAT verbal versus ACE L-score, .75; JSAT numerical versus ACE Q-score, .65. Value of JSAT scores for predicting College Board SAT scores, with interval of 1½ to 4½ years: median of 30 correlations between verbal scores, .81; median of 30 correlations between numerical scores, .55. The JSAT is not scored locally. All materials used, and unused, must be returned to Educational Records Bureau, which scores test, issues a typewritten report of results, including interpretative data. Part of income from scoring goes to Secondary Education Board to maintain continuous program of research directed toward improvement of test. *References:* Townsend (66), Traxler (70, 72, 74).

*Kuhlmann-Anderson Intelligence Tests,* 6th ed., by F. Kuhlmann and Rose G. Anderson. Princeton, N.J.: The Personnel Press, 1952. (Previous editions were published by Educational Test Bureau, Minneapolis, Minn.) Test booklets, $2.40 per 25; instruction manual, 15 cents; specimen set, $1.00; no separate answer sheets.

The Kuhlmann-Anderson tests are a long-standing, dependable series. They consist of 9 overlapping batteries covering the range from age 5, or kindergarten, to adult. The highest battery, Grades 9-maturity, is suitable for use in high school. This battery includes 10 short tests composed chiefly of linguistic and numerical items. The Kuhlmann-Anderson yields overall mental age and IQ. Working time varies from ½ hour to 1 hour, depending on level. More time is required for administration to younger children than to older ones. Only one form, but this is no great drawback, since there is a different battery for each elementary school grade. According to data in files of Educational Records Bureau, correlations between Kuhlmann-Anderson and Otis Self-Administering Test of Mental Ability, administered a year apart, range from .66 to .80; correlations with verbal and numerical scores on Junior Scholastic Aptitude Test range from .61 to .65. Notwithstanding lack of availability of machine scoring, Kuhlmann-Anderson is a widely used intelligence test in large city schools according to one survey (75). *References:* Kuhlmann and Anderson (39) and Traxler (76).

*Kuhlmann-Finch Intelligence Tests,* by F. H. Finch, based on plans of F. H. Kuhlmann. Minneapolis: Educational Test Bureau, 1952. Test booklets, $2.65 per 25; hand-scoring or machine-scoring answer sheets, $1.00 per 25; scoring keys: hand-scoring, 25 cents; machine-scoring, 25 cents (it is necessary to specify grade in each instance); manual, $1.25; specimen set, either edition, $1.50.

This comparatively new series of intelligence tests may be regarded as a group adaptation of the Kuhlmann-Binet Individual Test based on several years of research by Dr. Finch. Eight test booklets as follows: Test 1, Grade 1; Test 2, Grade 2; Test 3, Grade 3; Test 4, Grade 4; Test 5, Grade 5; Test 6, Grade 6; junior high school test, and senior high school test. Separate answer sheets, either hand-scorable or machine-scorable, are available for Grade 5 upward. The simple plan of the tests lends itself to ease of administration. Each test consists of several five-minute subtests; overall working time, probably about one class period. Results are expressed in terms of mental ages and deviation IQs. Norms derived from standardization testing in 30 states. Statistical data limited at present. Reliability coefficients for four of the five types of material used in the tests range from .88 to .97, according to information given in manual. Intercorrelations reported between subtests of Test 6, based on results for 125 sixth-grade pupils, are rather low, ranging from .16 to .59. It is estimated from Spearman-Brown split-half reliabilities reported for each of the eight test booklets that the reliability of Kuhlmann-Finch tests in a single year-age range is about .90 or possibly slightly higher. More information concerning reliability of subtests needed in order to evaluate the intercorrelations. *Reference:* Finch (27).

*Large-Thorndike Intelligence Tests,* by Irving Lorge and Robert L. Thorndike. Boston: Houghton Mifflin Company, 1954. Prices per package of 35 test booklets, hand-scoring key, class record sheet, directions for administering, general manual, and table of norms: consumable edition, Levels 1 and 2, nonverbal batteries, $2.70 each; Levels 3, 4, 5, verbal or nonverbal batteries, $2.10 each; reusable edition, Levels 3, 4, and 5, verbal or nonverbal batteries, $2.10 each for 35 test booklets, general manual, and table of norms; answer sheets for either hand or machine scoring, reusable edition, Levels 3, 4, and 5, with directions for administering, and class record sheet, $1.05 each set; scoring stencils, Levels 3, 4, and 5, 21 cents each.

A new series of tests of abstract intelligence constructed by two well-known authorities in educational measurement. Five levels recommended for use in the average school as follows: Level 1, kindergarten and Grade 1; Level 2, Grades 2 and 3; Level 3, Grades 4–6; Level 4, Grades 7–9; Level 5, Grades 10–12. The two upper levels may also be used with adults. The two lowest levels require comprehension of oral language but do not call for reading; Levels 3, 4, and 5 are available in both verbal and nonverbal batteries. Forms A and B at each level are available. Time required for administration approximately as follows: Levels 1 and 2, untimed; recommended time, 30 minutes for each setting, Levels 3, 4, and 5, verbal series, working time, 34 minutes, total time, 45 minutes; nonverbal series, working time, 27 minutes, total time, 35–40 minutes. Subtests in verbal series are designed to measure word knowledge, sentence completion, verbal classification, verbal analogies, and arithmetic reasoning. Nonverbal series covers figure analogies, figure classification, and number series. The nonreading levels, 1 and 2, include oral vocabulary, cross out, and pairing. The only available statistical data are those reported by authors in general manual. However, these are more extensive than data made available for many other new tests. The median item-test correlations that are reported range from .43 to .70, which are quite high. Reported reliabilities of different levels range from approximately .76 to about .90. It is to be noted that these are alternate form reliabilities and that they provide a more rigorous appraisal than Spearman-Brown split-half reliabilities. Intercorrelations among subtests and correlations between verbal and nonverbal series center around .6 to .7, which are usual for these kinds of measures. Correlations with certain other intelligence tests range from .52 to .64, which seem on the low side, although it is to be observed that these correlations are based on pupils in lower grades, where such correlations do not as a rule run high. Separate tables of norms are available for each level. *Reference:* Lorge and Thorndike (43).

*Ohio State University Psychological Test,* by Herbert A. Toops. Columbus: Ohio State University, 1919–55. Test blanks with inserted answer pad, 10 cents each; additional answer pads, 5 cents each (Forms 18, 19, 20, 21, 22, 23, 24, and 25); IBM answer sheets, 5 cents each (Forms 21, 22, 23, 24, 25). Form 21 also published by Science Research Associates, Chicago, with prices as follows: Form AH (hand scoring), 49 cents per test and answer pad; $2.05 per 25 answer pads; Form AM (machine scoring), 49 cents per test, $3.85 per 100 IBM answer sheets; 50 cents per scoring stencil; 75 cents per specimen set of either hand- or machine-scoring edition.

A group test of ability to think, requiring about two hours of working time. The available forms are not independent parallel forms but are successive revisions. The latest form, 25, is result of experimentation carried on since 1919. Includes three subtests: same-opposites, analogies, and paragraph comprehension, with a total of 150 test items. Separate answer pads or answer sheets must be used. In answer pad edition, hidden key between leaves of pad eliminates necessity of scoring test in usual way. The scorer merely counts the number of squares correctly punched out on the answer key. Designed for secondary schools, colleges, and adults. There are grade norms for public high school pupils in each grade from 9 through 12 and college norms; also independent school norms for an earlier edition, 15, for Grades

9–12. Reliability resulting from four separate studies in which one form was correlated with another are .90, .91, .88, and .91. Reliability of Form 21 based on 300 cases as reported in manual is .93. Validity coefficient of .68 is reported between scores on Form 21 and grades based on results for 1030 college freshmen. This is a high coefficient for correlation between test scores and grades used as a criterion. Validities of Form 24, resulting from correlations between test scores and first-year or first-semester scholarship are reported as .54, .58, and .60 for different groups of college freshmen. Evidence of the potential value of the test in selecting graduate students is indicated by a correlation of .82 reported between the test and the carefully controlled Miller Analogies Test (48). Toops' work on this test illustrates what can be done through long-continued research in bringing a test to a high degree of technical excellence. *References:* Toops (64) and Buros (11:412–413).

*Otis Quick-Scoring Mental Ability Tests,* by Arthur S. Otis. Yonkers, N.Y.: World Book Company, 1936–39. Alpha Test, Grades 1–4, Forms A and B, $3.00 per 35; Beta Test, Grades 4–9, Forms A and B, $2.15 per 35; Forms Cm and Dm (machine-scorable), $2.60 per 35; Gamma Test, high schools and colleges, Forms Am and Bm (machine-scorable), $2.60 per 35; Forms C and D, $2.15 per 35; specimen set, any level, 35 cents; machine-scored answer sheets for Beta or Gamma Test, $1.20 per 35; machine keys for either test, 20 cents per set.

A test of simple design which is very easily and quickly administered and scored. Yields IQ closely comparable with IQs secured with older Otis Self-Administering Test of Mental Ability. Alpha Test contains 90 multiple-choice items requiring no reading; Beta and Gamma Tests each contain 80 multiple-choice items consisting of verbal, numerical, and spatial material. Working time, 30 minutes for Beta and Gamma Tests; Alpha Test may be administered first as a nonverbal test and then as a verbal test; time limit for nonverbal test, 20 minutes; time for administering verbal test will vary, since directions to be read by teacher are interspersed with test items; overall time, probably about 30 minutes. Reliability, as reported in manual of directions, Alpha Test, correlation between Forms A and B, nonverbal, .68; verbal, .71; total, .81; Beta Test, correlation between Forms A and B, for single grade range, median of 12 reliability coefficients, .83; Spearman-Brown odd-even reliabilities, median of six correlations, .86; Gamma Test, median of three odd-even correlations corrected by Spearman-Brown formula, .90. The author reports that the average correlation between the Gamma Test and the Otis Self-Administering Higher Examination is .86.

*Otis Quick-Scoring Mental Ability Tests:* new edition, by Arthur S. Otis. Yonkers, N.Y.: World Book Company, 1939–54. Alpha Test (Short Form), Grades 1–4, Form A-S, $2.50 per 35; Beta Test, Grades 4–9; Forms EM and FM, $2.60 per 35; Gamma Test, High School and College, Forms EM and FM, $2.60 per 35; specimen set, any level, 35 cents; machine-scored answer sheets (Beta and Gamma Tests), $1.20 per 35; machine keys (Beta and Gamma Tests), 20 cents each.

These are new forms of the Otis Quick-Scoring series. The Alpha Test consists of verbal and numerical parts taken from the longer forms, each containing 45 items. The new forms of the Beta and Gamma Tests are constructed to be equivalent to the earlier ones. Working time, Alpha Test, 25 minutes; Beta and Gamma Tests, 30 minutes each. Alpha Test, hand scoring; Beta and Gamma Tests, either hand or machine scoring.

*Otis Self-Administering Tests of Mental Ability,* by Arthur S. Otis. Yonkers, N.Y.: World Book Company, 1922–29. Intermediate Examination, Grades 4–9; Higher Examination, Grades 9–12 and college, $2.10 per package of 35; specimen set, 35 cents.

One of the oldest and most widely used group tests of intelligence. Administration and scoring are very simple. Forms A, B, C, and D at each level. Each form consists of 75 items, most of which are verbal, although there is some numerical and spatial material in the test. Provides mental age and IQ; the latter is found by the deviation method instead of the MA over CA. Working time: 30 minutes; can also be administered with a 20-minute time limit. Publisher reports reliability coefficients of .95 for intermediate examination and .92 for higher examination based on correlations between Forms A and B. For higher examination, data in files of Educational Records Bureau indicate that Forms B and D are a little more difficult than Forms A and C. An abridgement and restandardization of the Otis S-A test, the Wonderlic Personnel Test, which may be administered with a time limit of 12 minutes, is widely used in selection and personnel work in industry. Buros reports bibliography of 71 items for Otis S-A test through 1947 (10:329–331).

*Pintner General Ability Tests: Verbal Series,* by Rudolf Pintner, Bess V. Cunningham, and Walter N. Durost. Yonkers, N.Y.: World Book Company, 1923–46. Pintner-Cunningham Primary Test, Forms A, B, and C, Kindergarten-Grade 2, $2.90 per 35; Pintner-Durost Elementary Test, Forms A and B, Grades 2–4, Scale 1, $3.95 per 35; Scale 2, $3.05 per 35; Pintner Intermediate Test, Forms A and B, Grades 4–9, $3.35 per 35; Pintner Advanced Test, Forms A and B, Grade 9 and above, $3.35 per 35; specimen set, any level, 35 cents; manual for interpreting Intermediate and Advanced tests, 25 cents; machine-scored answer sheets for either Intermediate or Advanced test, $1.65 per 35; set of 2 machine keys for either Intermediate or Advanced test, 40 cents.

One of the better series of verbal tests of mental ability. Well constructed and standardized on large population. Primary tests consists entirely of pictures. Scale 1 of Elementary test has picture content; Scale 2 has reading content. Inter-

mediate and Advanced tests each contain eight subtests. Results are expressed in terms of standard scores, mental ages, and deviation IQs. Working time ranges from approximately 25 minutes for Primary test to 55 minutes for Advanced test. Overall time varies from one to two class periods. Split-half reliabilities according to publisher's data, .90 to .97. Correlations between these tests and seven other tests range from .71 for Revised Stanford-Binet Scale to .87 for Otis Group Intelligence Scale. Correlation with total scores on Metropolitan Achievement Tests, .84 at fifth-grade level, .79 at seventh-grade level. Correlation with college grades, .59 according to one study (4).

*Pintner General Ability Tests: Non-Language Series,* by Rudolf Pintner. Yonkers, N.Y.: World Book Company, 1945. Intermediate Test, Grades 4–9, Forms K and L, $4.50 per 35; Pantomime Directions, 25 cents; specimen set, 35 cents.

This group test is intended to parallel the intermediate test of the verbal series of the Pintner. It is designed to be independent of word knowledge and facility. Six subtests: figure dividing, reverse drawings, pattern synthesis, movement sequence, manikin, and paper folding. May be administered with simple oral directions or in pantomime without use of language. Working time, 50 minutes. Hand scoring with stencil key. Yields mental ages and deviation IQs. Designed to be particularly useful with hard-of-hearing children and pupils with foreign language background. Spearman-Brown split-half reliabilities of .86 and .89 reported in manual.

*Revised Stanford-Binet Scale,* by Lewis M. Terman and Maud A. Merrill. Boston: Houghton Mifflin Company, 1937. Forms L and M. $3.00 per 25 booklets either form; box of supplementary materials, $18.00 either form; directions for administering, $2.50.

A revision of the widely used individual intelligence scale first issued by Terman in 1916. May be used from age 2 to superior adult level. Should be administered, scored, and interpreted only by persons trained in the use of this particular scale. The main concepts in Binet's original scale and the first Stanford revision were conserved in this revision, but important innovations were made. The present revision covers a wider range, is more accurately standardized, provides a more extensive sampling of abilities, and is somewhat less verbal than the older scale. An important feature in the Terman-Merrill revision is a correction in the chronological ages used in finding the intelligence quotients between the ages of 13 and 16. The results of the test may be expressed in mental ages, IQs, or standard scores. Principal difference between Forms L and M is lack of vocabulary test in latter. The authors report that the reliability values range from .98 for subjects below 70 IQ to approximately .90 for subjects above 130 IQ. The authors also found reliability coefficients for the 21 age groups, using subjects who were within four weeks of a birthday or half birthday. The coefficients ranged from .85 to .95 with a median of .91. Terman and Merrill's book, *Measuring Intelligence* (62) includes a very complete manual for the test. Numerous correlations with other criteria, particularly with academic achievement, have been reported in extensive research literature concerning the test. In general, correlations with achievement are substantial although not higher than those between achievement and the better group tests of intelligence. See Buros' *Mental Measurements Yearbooks* for bibliography of nearly 500 studies (*9*:242–244; *10*:375–379; *11*:461–464).

*SRA Primary Mental Abilities,* by L. L. Thurstone and Thelma Gwinn Thurstone. Chicago: Science Research Associates, 1946–53. Three levels: ages 5–7; ages 7–11; ages 11–17. Hand scoring for all three levels; machine scoring for highest level. Ages 5–7: test booklets, $2.75 per 20; specimen set, 50 cents; ages 7–11: test booklets (reusable, self-scoring carbon answer pads), 49 cents each; extra answer pads, $1.95 per 20; specimen set, 75 cents; ages 11–17: reusable test booklets with self-scoring answer pads, 49 cents each; extra answer pads, $1.95 per 20; specimen set, 75 cents; machine-scoring, resuable test booklets, 49 cents each; answer sheets, $3.85 per 100; specimen set, 75 cents; scoring key, set of six, $2.00. For either hand-scored or machine-scored tests, profile sheets, 50 cents per 20; extra manual, 25 cents.

These tests are an abbreviated, highly speeded edition based on the original tests which resulted from Thurstone's intensive work in factor analysis. The first tests to eventuate from Thurstone's factorial studies of mental ability were the Tests for Primary Mental Abilities, a highly reliable four-hour battery prepared mainly for high school and college students and published by the American Council on Education and Science Research Associates. That battery has been out of print for several years. The next step was the preparation of the Chicago Tests of Primary Mental Abilities, a similar but easier two-hour battery designed for ages 11 to 17. Those tests are still in print and are available from Science Research Associates. The present SRA Primary Mental Abilities are a still briefer edition designed to cover the entire age and grade range from kindergarten to college. There is one form at each level. The total administration time is 60 minutes for each of the first two batteries and 40 to 45 minutes for the battery designed for ages 11–17. Each level is intended to measure five mental factors as follows: ages 5–7, motor, perceptual speed, quantitative, verbal meaning, and space; ages 7–11, perception, number, reasoning, verbal meaning, and space; ages 11–17, number, reasoning, verbal meaning, space, and word fluency. The word fluency test cannot be scored mechanically, and hand scoring of this part is very tedious, partly because of ambiguity in the scoring directions. Each level also yields a total score. In the battery for ages 5–7, this score may be translated into a mental age; in the battery for ages 11–17, the raw score may be changed into a quotient score roughly comparable to an IQ. Results may be profiled in terms of mental ages or percentiles. Spearman-Brown odd-

even reliabilities, as reported in manuals for various subtests of the ages 7–11 and 11–17 batteries tend to range from .80 to .95. Substantial verification of these reliabilities was reported in an article by Jacobs (32). It should be kept clearly in mind, however, that split-half reliabilities for tests as highly speeded as these are without doubt spuriously high. The test manuals report intercorrelations of the part scores which are low to moderate, and the general level of these correlations is supported in research reports by Jacobs (32) and Townsend and Spaulding (68) on the basis of independent school data. The primary mental abilities are printed in an attractive format that will appeal to many schools. The main question concerning them is whether or not the ability scores yielded by these brief and speeded tests are valid measures of what they purport to measure. *References:* Thurstone (63) and Buros (11:698–710).

*Terman-McNemar Test of Mental Ability,* by Lewis M. Terman and Quinn McNemar. Yonkers, N.Y.: World Book Company, 1941–49. $3.20 per package of 35; answer sheets, $1.50 per 35; specimen set, 35 cents.

Revision of Terman Group Test of Mental Ability. Forms C and D, adapted for machine scoring. Grades 7–12 and college freshmen. Includes subtests on information, synonyms, logical selection, classification, analogies, opposites, and best answer. IQs based on deviation method similar to Otis. Working time, 40 minutes. According to manual of directions, split-half reliability of total score is .96 and interform reliability is .95 based on over 200 cases in Grades 7–9. This is a carefully constructed test, but little statistical evidence on validity is available.

*Wechsler-Bellevue Intelligence Scale,* by David Wechsler. New York: The Psychological Corporation, 1939–47. Form I, $21.00 per set of test material, including 25 record blanks and manual, *The Measurement of Adult Intelligence,* 3d ed.; $1.60 per package of 25 record blanks, manual alone, $2.25. Complete set, Form I, $17.50; Form II, $19.00.

This scale was issued in 1939 to meet the need for more adequate sampling of adult intelligence than was provided by the Revised Stanford-Binet Scale, which was more satisfactory with children than with adults. Two forms suitable for all ages from 10 to adult. Testing time, about 40 to 60 minutes. Contains 11 tests of which 6 are verbal (vocabulary test need not be used) and 5 are nonverbal performance tests. Raw scores on each test are converted into standard scores, and the total of these scores is converted into IQ equivalents through a procedure which makes adjustments for the age of adults. Verbal and performance IQs also available. Test-retest reliability reported as .94 for the full scale. Reported test-retest reliability coefficients for subtests range from .62 to .88. Although the theoretical basis and structure of the tests have received a good deal of criticism, this scale is one of the most widely used clinical instruments, and it provides undoubtedly the best single measure of adult intelligence. *References:* Buros (9:264–267; 10:384–387; 11:469–476), and Guertin, Frank, and Rabin (29).

The *Wechsler Adult Intelligence Scale (WAIS)* is a revision and restandardization of Form I of Wechsler-Bellevue Intelligence Scale. It supersedes Form I, although materials for Form I are still available for users equipped with this form. Designed for use from age 16 to over 75. WAIS cannot be administered with Wechsler-Bellevue materials. New York: The Psychological Corporation, price of complete set of WAIS, including manual, $21.00.

The *Wechsler Intelligence Scale for Children (WISC),* by David Wechsler. New York: The Psychological Corporation, 1949. $22.00 per complete set of test materials, including 25 record forms and manual; manual alone, $2.50; record forms, $2.00 per 25.

A downward extension of the Wechsler-Bellevue Intelligence Scale. One form, ages 5–15. Twelve subtests of which six are verbal and six are performance. One verbal test and one performance test are optional. Standardized on 2200 white American children. Some research on reliability and validity of this comparatively new test has been published, but more studies are needed. *Reference:* Seashore, Wesman, and Doppelt (58).

*Yale Educational Aptitude Tests,* by A. B. Crawford and Paul S. Burnham. New Haven, Conn.: Department of Personnel Study, Yale University, 1939–47. Distributed and scored by Educational Records Bureau, 21 Audubon Avenue, New York 32, N.Y. Also available for local scoring. $2.50 per individual for test material and complete service; $1.75 per set of test booklets, answer sheets, and profile forms, without scoring service; $2.50 per set of scoring keys on orders for less than 25 sets of booklets; scoring keys free of charge for each order of 25 or more sets; answer sheets, 25 cents per set of eight (including practice answer sheets); profile sheets, 4 cents each; sample copies of practice booklets, practice answer sheet, and profile form distributed free of charge.

These tests, like the SRA Primary Mental Abilities and the Differential Aptitude Tests, comprise a uniform battery designed to measure different capacities. They are the result of a long period of systematic experimentation. Consist of seven tests, each requiring 45 minutes of testing time: verbal comprehension, artificial language (linguistic facility), verbal (syllogistic) reasoning, quantitative (scientific) reasoning, mathematical aptitude, spatial (three-dimensional) visualizing, and mechanical ingenuity. Tests 1, 2, 5, and 6 are printed in one booklet, and Tests 3, 4, and 7 in another booklet. Split-half reliabilities of separate tests, .92 to .98. Authors report that several hundred correlation coefficients between test scores and appropriate criteria of subsequent achievement range from .45 to .65. The report of results is made in form of a diagnostic profile. A portion of income from sales is used for further research on the tests. *References:* Crawford and Burnham (19) and Jacobs (33).

### Art

*Graves Design Judgment Test,* by Maitland Graves. New York: The Psychological Corporation, 1948. Test booklets, reusable spiral-bound, 1–9 copies, $1.75 each; 10–99 copies, $1.50 each; 100 or more copies, $1.40 each; answer sheets for hand or machine scoring, $1.85 per package of 50; $15.00 per package of 500; manual and scoring key, if ordered separately, 35 cents per set. Specimen set, complete, $1.85.

Devised as a measure of appreciation or production of art or of readiness to learn in this field. One form, 90 items. Grades 7–16 and adults. No time limit, but about 20 to 30 minutes required for administration. Spearman-Brown odd-even reliability reported as .81 to .93 with a median of .86. Information is given concerning differences between scores of art students and those in other curricula at both high school and college levels, but statistical data on validity of this test are lacking. *Reference:* Buros (*11*:335–337).

*Knauber Art Ability Test,* by Alma Jordan Knauber. Cincinnati, Ohio: The Author, 6988 Warder Drive. 1932–35. 12 cents per test; $1.25 per manual; $1.30 per specimen set.

A production test using semiobjective scoring. One form, Grades 7–16 and adults. The test is not timed but requires about three hours. Author reports reliability of .95 by split-half technique, but this correlation is based on the scores of only 83 students. Some information is given relative to differences between scores of art majors and nonart majors. *Reference:* Knauber (38).

*Meier Art Test: Test I: Art Judgment,* by Norman C. Meier. Iowa City, Iowa: State University of Iowa, Bureau of Educational Research and Service, 1929–42. $1.20 per book of test pictures; 25 cents for examiner's manual; record sheets, 4 cents each; $1.40 per specimen set.

This test is a revision of the Meier-Seashore Art Judgment Test. It consists of 100 plates selected from 125 in the earlier test. Each plate presents a pair of pictures consisting of a picture created by a great artist and the same picture altered to reduce its artistic merit. The score is based on the number of unaltered masterpieces chosen by the subject as the better. One form suitable for use in Grade 7 and above and with adults. No time limit; administration may be expected to require about 40 minutes. The reliability of this test is given as .70 to .84. Percentile norms are available for the junior high school, the senior high school, and the college-adult level. *References:* Meier (47) and Prothro and Perry (52).

*Tests in Fundamental Abilities of Visual Arts,* by Alfred S. Lewerenz. Los Angeles: California Test Bureau, 1927. $12.50 per color chart; 15 cents per manual; 50 cents per specimen set; Part I, 6 cents per copy; Part II, 6 cents per copy; Part III, 7 cents per copy.

This test is designed to measure the art abilities developed in the public schools. A battery of nine tests arranged in three parts, as follows: Part I, Recognition of Proportion, Originality of Line; Part II, Observation of Light and Shade, Knowledge of Art Vocabulary, Visual Memory of Proportion; Part III, Analysis of Problems in Cylindrical Perspective, Analysis of Problems in Parallel Perspective, Analysis of Problems in Angular Perspective, Recognition of Color. One form suitable for Grades 3-adult. Working time, 30 to 35 minutes for each part. Author reports reliability of .87 based on 100 cases in Grades 3–9 and correlation of .40 with marks in art classes. *Reference:* Lewerenz (42).

### Music

*Seashore Measures of Musical Talents, Revised Edition,* by Carl E. Seashore, Don Lewis, and Joseph G. Saetveit. New York: The Psychological Corporation, 1919–39. $12.00 per album of three unbreakable records including manual, scoring key, and 50 answer sheets; $1.00 per 100 record blanks; $2.10 per 50 machine- or hand-scoring answer sheets; scoring stencil, 25 cents.

One of the best known of all aptitude tests. Consists of two series of three double-faced phonograph records. Designed to measure sense of pitch, sense of intensity, sense of time, tonal memory, sense of rhythm, and sense of timbre. Records are played to the subjects, who enter their answers on special blanks. Grades 5–14 and adults. Series A is for the testing of unselected groups and for use in selection and guidance; Series B, a more difficult set of tests for use with musicians and prospective or actual students of music, is no longer available.

Percentile norms given for Series A in 1956 revision of manual for each of six scores at three levels: Grades 4–5, Grades 6–8, and Grades 9–16. Reliability of individual tests reported as follows: Grades 4–5, .55 to .85; Grades 6–8, .63 to .84; Grades 9–16, .68 to .84. Validity data for revised series have seldom been reported, notwithstanding the long period these tests have been in existence. This is due partly to the difficulty of obtaining suitable criteria. Music teachers tend not to be objective-minded and often do not keep records on their students. *References:* Saetveit, Lewis, and Seashore (56); also bibliography in Buros (*10*:262–263, *11*:342).

*Wing Standardized Tests of Musical Intelligence: A Test of Musical Ability on 10 Records,* by H. D. Wing and Cecilia Wing. Sheffield City Training College, Sheffield, England. $20.00 per set of ten records, manual, scoring key, and 50 answer sheets; $2.00 per single record; $2.00 per 100 answer sheets (prices as given may not be up to date).

A test issued in 1948 which yields eight scores—chord analysis, pitch change, memory, rhythmic accent, harmony, intensity, phrasing, and a total score. Designed for ages 10 and over, One form. Testing time, 60 minutes. Similar in some respects to the Seashore tests, but the availability of a total score indicates an "omnibus" theory of musical ability as

contrasted with Seashore's theory of specific abilities. Spearman-Brown split-half reliability of subtests reported as .65 to .86 and that of total score as .90 to .91. The recording has been criticized as somewhat inferior from a technical standpoint, but the tests are, nevertheless, regarded as a valuable contribution to measurement in the musical field. *References:* Wing (83) and Buros (*11*:344–346).

*Kwalwasser Test of Music Information and Appreciation,* by Jacob Kwalwasser. Iowa City, Iowa: State University of Iowa, Bureau of Educational Research and Service, 1927. $4.50 per 100 tests; 5 cents a copy; specimen set, 15 cents.

A group test dealing with knowledge of composers—their nationality, compositions, types of composition—of artists, instruments and production of tones on them, and of musical structure and form in general. Testing time is 40 minutes. Percentile norms based on scores of high school and college students in music appreciation courses are given. Reliability, .70 to .72. *Reference:* Semeonoff (59). Both this test and the following one by Kwalwasser are still used to a considerable extent, notwithstanding the early dates of publication.

*Kwalwasser-Ruch Test of Musical Accomplishment,* by Jacob Kwalwasser and G. M. Ruch. Iowa City, Iowa: State University of Iowa, Bureau of Educational Research and Service, 1924–27. $6.00 per 100 tests; 6½ cents a copy, specimen set, 20 cents.

A group test designed to measure achievement of pupils in a typical public school music course in the elementary and high school grades. It includes knowledge of musical symbols and terms, recognition of syllable names, detection of pitch errors and time errors in a familiar melody, recognition of pitch names, time and key signature, note and rest values, and recognition of familiar melodies from notation. Testing time is 40 minutes. The split-half reliability of the total score is quoted as .97; reliability of subtests, .70 to .97. Norms are based on scores of 5414 pupils in Grades 4 to 12 and are given by deciles. *Reference:* Kwalwasser (40).

*Musical Aptitude Test, Series A,* by Harvey S. Whistler and Louis P. Thorpe, Los Angeles: California Test Bureau, 1950. $3.00 per set of test materials used by examiner; separate IBM answer sheets, which must be used, 3 cents each; scoring stencils, hand or machine, 20 cents each.

A test of potential ability for learning music consisting of five parts and yielding four scores: rhythm, pitch, melody, and a total score. A piano is used in administering the test. One form. Grades 4–10. Requires working time of about 40 minutes. Well-prepared manual of directions. Decile norms for each grade from 4 through 8 and for Grades 9 and 10 combined. Kuder-Richardson reliability of total score reported as .87; reliabilities of subscores, .64 to .77. A correlation of .78 corrected for attenuation has been obtained between total score and teachers' estimate of vocal talent. *Reference:* Buros (*11*:341–342).

### Science

*Stanford Scientific Aptitude Test,* by David L. Zyve. Stanford University, Calif.: Stanford University Press, 1930. Test booklets, $1.00 per 5 copies; $4 per 25; specimen set, 25 cents.

Developed to measure 11 components of scientific aptitude. One form which requires 60 to 120 minutes of working time. Suitable for senior high school and college students. Used for entrance to schools of engineering and science. An interesting and well-printed test but one that is now quite old and not representative of the most advanced procedures of test construction. Norms based on scores of 323 college students. Reliability of .93 reported by author at time test was constructed. Benton and Perry reported correlations of .30 and .37 between aptitude scores and scholarship covering four years of work. Few other studies of validity of this test have been made. The test suffers by comparison with modern tests in other fields, but it remains almost the only generally available test designed specifically to measure aptitude for the study of science. *References:* Zyve (84), Benton and Perry (6), and Cooprider and Laslett (16).

### Mechanical Aptitude

*Bennett Mechanical Comprehension Tests,* by George K. Bennett and others. New York: The Psychological Corporation, 1940–51. Booklets, $4.00 for 1–9 packages including 25 tests with manual and scoring stencils; ten or more packages, $3.60; single copies, 18 cents each; IBM answer sheets (specify form), $1.85 per package of 50; specimen set, 35 cents.

Four forms: Form AA for general population, Form BB more difficult than Form AA; and Form CC more difficult than Form BB; Form W1 for women. Form AA is suitable for use with boys in Grade 9 and above; Form BB with men in Grade 13 and over; Form CC with men in engineering schools; and Form W1 with girls and women in Grade 9 and over. Designed to measure understanding of the operation of physical principles. Not timed; usually requires about 30 minutes. Machine scorable. Each form contains 60 items. Split-half reliability corrected by the Spearman-Brown formula is reported at about .80 to .84, which is rather satisfactory for an unspeeded test of 60 items. Correlations of test scores with job performance of groups in various occupations have been reported. These are of the order of .3 to .6, which are as high as those usually obtained between predictive measures and success on the job. *Reference:* Buros (*11*:765–766).

*MacQuarrie Test for Mechanical Ability,* by T. W. MacQuarrie. Los Angeles: California Test Bureau, 1925–43. $4.20 per 35 booklets; specimen set, 50 cents.

One form which yields eight scores: tracing, tapping, dot-

ting, copying, location, blocks, pursuit, and total. A group test for ages 7 and over. Testing time, 20 minutes. Norms based on results for 2000 adults. Retest reliability of the whole test reported by author .90; reliabilities for subtests range from .72 for location to .96 for copying. Some data on predictive validity reported in manual. One of the oldest and most widely used of the mechanical ability tests. *References:* Buros (*10*:688–691, *11*:759).

*Revised Minnesota Paper Form Board Test,* by Rensis Likert and William H. Quasha. New York: The Psychological Corporation, 1930–48. Forms AA and BB (hand scoring), $1.80 per 25; specimen set (including Forms AA and BB), 35 cents; Forms MA and MB (machine scoring), $2.75 per 25; IBM answer sheets, $1.85 per 50; specimen set (including Forms MA and MB) 35 cents.

Designed to measure ability to visualize and mentally manipulate geometric forms and objects in space, which is one aspect of success in mechanical and engineering occupations. Two comparable forms each for hand and machine scoring. Working time, 20 minutes. Norms are available for educational groups in elementary school, high school, and college, and for several occupational groups. On basis of scores of 290 high school seniors, reliability of one form reported as .85 and that of both forms as .92. Correlation with Otis Self-Administering Test of Mental Ability, 40; American Council Psychological Examination, 1940 High School Edition, .42; Bennett Mechanical Comprehension Test, .39. *References:* Quasha and Likert (53) and Buros (*11*:762–764).

*SRA Mechanical Aptitudes,* by Richardson, Bellows, Henry, and Company, Inc. Chicago: Science Research Associates, 1947–50. Reusable booklets with answer pads, 49 cents each; additional answer pads, $1.75 per package of 20; profile sheets, 50 cents per package of 20; specimen set, 75 cents.

Yields scores for three parts: tool usage, space visualization, and shop arithmetic, and a total score. Administration time, 40 minutes. Some rather inadequate norms based on scores of 444 high school graduates attending trade school are available. The test is well printed and interesting, and the items seem well chosen. Kuder-Richardson reliability of .83 reported in manual. Further research is needed.

*Stenquist Mechanical Aptitude Tests,* by John L. Stenquist. Yonkers, N.Y.: World Book Company, 1921. Price of either Test I or Test II, $2.75 per 35; manual, 25 cents; specimen set, 50 cents.

The oldest and one of the best-known among the mechanical aptitude tests. Tests measure mechanical aptitude by problems presented in pictures. Grade range, 4–12. *References:* Stenquist (60) and Buros (*10*:713–714).

*Wrightstone-O'Toole Prognostic Test of Mechanical Abilities,* by J. Wayne Wrightstone and Charles E. O'Toole. Los Angeles: California Test Bureau, 1946–47. Test booklets, $3.50 per 35; 10 cents per copy; IBM answer sheets, 3 cents each; scoring stencils, machine or hand scoring, 20 cents each; specimen set, 50 cents.

Designed to measure common abilities related to success in a variety of occupations. Five subtests covering arithmetic computation, reading simple drawings and blueprints, identification and use of tools, accuracy in measuring, and discerning spatial relations. One form. Grades 7–12 and adults; working time, 38 minutes. Subtest and total test norms based on scores of 5000 male pupils in Grades 8–12. Kuder-Richardson reliabilities of .89 to .94 reported for Grades 7–12. Some positive evidence of validity reported in manual, but data are limited at present. *Reference:* Buros (*11*:760–761).

### Clerical Aptitude

*Detroit Clerical Aptitudes Examination,* by Harry J. Baker and Paul H. Voelker. Bloomington, Ill.: Public School Publishing Company, 1937–44. Test booklets, $1.95 per 25; 9 cents a copy; sample set, 40 cents. Ayres Handwriting Scale must be ordered separately at 40 cents a copy.

One form containing eight parts: rate and quality of handwriting, rate and accuracy in checking, knowledge of simple arithmetic, motor speed and accuracy, knowledge of simple commercial terms, visual imagery, rate and accuracy in classification, and alphabetical filing. Working time, 30 minutes. Designed for high school use and standardized on high school population. Reliability of .85 is reported by authors. Validities based on correlations of the test with marks in commercial courses are reported as .56 in bookkeeping, .37 in shorthand, and .32 in typewriting.

*Minnesota Clerical Test,* by Dorothy M. Andrew, under the direction of Donald G. Paterson and Howard P. Longstaff. New York: The Psychological Corporation, 1933–46. Test booklets, $1.60 per 25; specimen set, 35 cents.

Formerly known as Minnesota Vocational Test for Clerical Workers. One form contains two parts. The first part consists of 200 pairs of numbers; the second part contains 200 pairs of names. Each pair is separated by a line; a check mark is to be made on the line if the two numbers or two names of a pair are exactly the same; no mark is made if they are different. High school level and above. Working time, 15 minutes. Norms by sexes, by age and by grade through high school and for clerical workers in the adult population. Split-half odd-even reliabilities reported in the manual are .86 for number checking, .93 for name checking, and .90 for the two combined. These are probably spuriously high because of the speed factor. Test-retest reliabilities reported in the manual range from .76 to .93 for number checking, from .77 to .86 for name checking, and from .85 to .91 for the entire test. Contingency coefficients between test scores and ratings of various groups of clerical employees fall within the range .28

to .66. *References:* Andrew (3) and Buros (10:634–637).

*General Clerical Test,* by The Psychological Corporation Staff. New York: The Psychological Corporation, 1944–50. Test booklets, $3.75 per 25; specimen set, 35 cents.

A test for use in selecting and upgrading clerical personnel. Grades 9–16 and applicants for clerical positions. Nine parts arranged to yield scores for clerical speed and accuracy, number facility and verbal facility, and a total score. Working time, 50 minutes. Test-retest reliabilities reported for part scores are .87, .82, and .91. Reliability of total, .94. Validity data based on correlations of test scores with performance ratings and instructors' ratings have been given. Most of these correlations are within the range .4 to .5. *Reference:* Buros (11:720–723).

*SRA Clerical Aptitudes,* by Richardson, Bellows, Henry, and Company, Inc. Chicago: Science Research Associates, 1947–50. Reusable test booklet with answer pad, 49 cents each; answer pad, per package of 20, $1.95; profile sheets, per package of 20, 50 cents; specimen set, 75 cents.

Consists of three tests: office vocabulary, office arithmetic, and office checking. Suitable for high school pupils and applicants for clerical jobs. One form. Grades 9–12 and adult. Administration time, 35 minutes. Percentile norms for high school pupils and for applicants for clerical jobs. Reliabilities of total scores estimated by Kuder-Richardson Formula 21 reported in manual range from .85 to .90. Intercorrelations between parts .30 to .50. Validity data lacking. *Reference:* Buros (11:724–725).

### Mathematics

*Iowa Algebra Aptitude Test,* rev. ed. by Harry A. Greene and Alva H. Piper. Iowa City, Iowa: State University of Iowa, Bureau of Educational Research and Service, 1929–42. Test booklets, $1.75 per 25; IBM answer sheets, 3 cents each; set of stencils for machine scoring, 20 cents; manual, 25 cents; specimen set, 50 cents.

Composed of four parts: arithmetic, abstract computation, numerical series, and dependence and variation. Yields four subscores and total score. Parts separately timed; total working time, 35 minutes. One form suitable for hand or machine scoring. Grade range, high school. Percentile norms for end of eighth grade and beginning of high school. Manual gives Kuder-Richardson reliability of .87 for revised edition, based on unselected end-of-year eighth-grade pupils. Correlation of total scores with algebra grades, .66; with an algebra achievement test, .76. These are rather high as validity coefficients go. *Reference:* Buros (11:500–502).

*Lee Test of Algebraic Ability,* by J. Murray Lee. Bloomington, Ill.: Public School Publishing Company, 1930. $2.00 per 25 booklets, or 11 cents a copy; specimen set, 40 cents.

Planned to indicate the algebra ability of pupils who have not studied algebra. One form consisting of four subtests: arithmetic problems, analogies, number series, and formulas. Working time, 25 minutes. Correlation with later algebra achievement was .71 according to one study by the author. Reliability estimated by the split-half method is given as .93. *Reference:* Torgerson and Aamodt (65).

*Orleans Algebra Prognosis Test,* rev. ed., by Joseph B. Orleans. Yonkers, N.Y.: World Book Company, 1928–51. $3.15 per 35 booklets; specimen set, 35 cents.

Consists of 11 subtests of which one is an arithmetic test, one is a summary test, and nine are tests which follow simple lessons which the pupil must study in order to work the problems. Total testing time is 39 minutes, of which 17 minutes are spent on study and 22 minutes on working the problems. Speed apparently an important factor in these brief subtests. One form. As is true of practically all prognostic tests for the study of high school subjects, the norms are not very adequate. Spearman-Brown split-half reliability of .92 as given in the manual may be spuriously high because of speed factor. Manual reports correlations of .59 and .60 between prognostic test scores and scores on a standardized achievement test of beginning algebra students. *References:* Orleans (51) and Buros (11:503–504).

*Iowa Plane Geometry Aptitude Test,* rev. ed., by Harry A. Greene and Harold W. Bruce. Iowa City, Iowa: State University of Iowa, Bureau of Educational Research and Service, 1935–42. $1.75 per 25 tests; machine-scorable answer sheets, 4 cents each; manual, 25 cents; specimen set, 45 cents.

A prognostic test for high school pupils who have studied no geometry. One form. Total working time, 44 minutes. Authors report Kuder-Richardson reliability of .887 for revised edition based on 260 ninth-grade pupils. The authors also report a correlation of .705 with a test of achievement in geometry and one of .592 with first- and second-semester grades. Percentile norms are available, based on 1754 pupils tested in September before the beginning of instruction in plane geometry.

*Lee Test of Geometric Aptitude,* by Dorris M. L[...] and J. Murray Lee. Los Angeles: California Test Bu[...]au, 1931. $2.45 per 35 tests, or 7 cents a copy; specime[...]et, 25 cents.

Designed to measure aptitude for geometry of high s[...]l pupils who have not studied the subject. Four parts, in[...] ing a total of 50 items of the recall type. One form requ[...] 31 minutes of working time. Corrected split-half reliab[...] of .91 reported. Percentile norms based on 450 cases[...] available. Also, there is a critical score for the test w[...] may have some guidance value. *Reference:* Lee and [...] (41).

*Orleans Geometry Prognosis Test,* rev. ed., by Joseph B. Orleans. Yonkers, N.Y.: World Book Company, 1929–51. $3.85 per 35 tests; specimen set, 35 cents.

A test for the prediction of geometry ability of pupils who have not studied the subject. Similar in purposes and general form to Orleans Algebra Prognosis Test. Contains several brief lessons, each followed by a short test. One form requires 39 minutes of working time; overall administration time about 45 minutes. Not much data on reliability and validity available, but would seem to be one of the better tests of its kind. *Reference:* Orleans (51).

### Foreign Language

*Foreign Language Prognosis Test,* by Percival M. Symonds. New York: Bureau of Publications, Teachers College, Columbia University, 1930. $3.50 per 35; specimen set, 35 cents.

A test designed to predict success in learning a foreign language. Prediction may be better for classes taught by grammar-translation method than by less formal procedures. Two forms, A and B, for use in Grade 8 or 9. Working time, 44 minutes. Reliability .73–.78 based on correlation between total scores on Forms A and B. Correlations of .60 and .61 are reported between prognosis test scores and achievement test scores: *References:* Symonds (*61*) and Buros (*11*:348–349).

*Luria-Orleans Modern Language Prognosis Test,* by Max A. Luria and Jacob S. Orleans. Yonkers, N.Y.: World Book Company, 1928–30. $3.15 per 35; specimen set, 35 cents.

This test purports to measure ability of pupils to learn French, Spanish, or Italian. One form for use in Grades 7–13. Working time, 76 minutes. Manual reports a correlation of .68 between test scores and marks in French. Kaulfers (36) reported correlations between prognosis test scores and achievement test scores in Spanish at end of first semester as .35 for an eighth-grade group and .51 for a ninth-grade group. He found correlations of .43 and .52, respectively, between the prognosis test scores and teachers marks in Spanish. No norms are available, for this type of test cannot readily be standardized. *Reference:* Buros (9:158).

### Stenography

*Turse Shorthand Aptitude Test,* by Paul L. Turse. Yonkers, N.Y.: World Book Company, 1940. $3.10 per 35 booklets; specimen set, 35 cents.

Designed to measure the abilities related to success in stenography. Contains seven subtests: stroking, spelling, phonetic association, symbol transcription, word discrimination, dictation, and word sense. Time limits for parts rather brief. Total working time, 40 minutes; overall time, about 55 minutes. Answers are recorded in the booklet, and scoring is done with a strip key.

Percentile norms for total score based on results for 780 pupils about to begin the study of shorthand. Manual reports odd-even reliability coefficients for subtests ranging from .86 to .95, and total score reliability of .98. These reliabilities are exceptionally high for a test of this length; probably spuriously high due to influence of speed factor. Correlations between total aptitude scores obtained before study of shorthand and measures of stenographic achievement after one or two years of shorthand range from .49 to .68. As validity coefficients go, these correlations are substantial. No validation data available for actual success in the employment situation. *References:* Turse (80) and Tuckman (79).

*Stenographic Aptitude Test,* by George K. Bennett. New York: The Psychological Corporation, 1939. $2.10 per 25 booklets; specimen set, 35 cents.

Planned to measure ability to learn shorthand and typewriting. Consists of a transcription test and a spelling test. One form, calling for 15 minutes of working time; overall time, about 25 minutes. Range, high school and college. Norms for high school and private secretarial school students. Reliability of transcription test based on scores made in odd minutes with those made in even minutes reported in manual as .975, which may be inflated by the influence of speed. Reliability of spelling test obtained by correlating first half with second half given as .913. Point biserial correlation of transcription score with success or failure of students in a private secretarial school reported as about .27; correlation of spelling score with success approximately .48. *Reference:* Barrett (5).

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CHAPTER VI

# *Evaluation of Achievement in a Guidance Program*

Achievement is probably, with the exception of general scholastic aptitude, the most important area of appraisal for a guidance program. Scores on achievement tests are excellent bases for the prediction of the future educational success of individuals in the subjects covered by the tests, afford very helpful clues for purposes of vocational guidance, and are significantly correlated with aptitude and with interests. Thus tests of achievement help to provide information concerning the general academic aptitude and the functioning interests of each individual, and probably should form the core of the systematic testing program of every school which hopes to do a thorough and objective job of guidance.

Although the appraisal of achievement has always been one aspect of the process of educating and advising young people, it is well known that this type of evaluation was almost entirely subjective until about 50 years ago. The first objective measures of achievement were applied to facts and skills. Various other kinds of achievement were gradually attacked objectively. At present, we still depend to some extent upon subjective methods, particularly in the appraisal of processes such as ability to do creative writing, but objective procedures are being applied successfully to several areas for which they were formerly thought to be unsuited. For instance, by means of a series of questions all centered around a problem stated in paragraph form, it is possible to evaluate a pupil's ability to draw logical inferences from a set of data or to generalize from specific facts.

## STEPS IN CONSTRUCTION OF AN ACHIEVEMENT TEST

The breadth of measurement provided by modern objective tests and their potential worth as counseling instruments may perhaps best be shown by indicating the steps taken in the construction of one of these instruments.

The usual achievement test consists of 100 to 200 brief answer questions. At first glance, it looks like the sort of thing that almost any teacher could make up without special training. On the surface, there is little evidence of the careful work that goes into the construction of a good achievement test.

The building of such a test involves at least 13 steps as follows:

1. A survey of the aims or objectives in the subject, or subject field, for which the test is to be made through the use of textbooks, courses of study, and questionnaires to schools.
2. Selection of those purposes which are widely accepted and which can be measured objectively.
3. A decision concerning the weight to be assigned to the different objectives; that is, the proportion of the test to be devoted to each objective.
4. Preparation of test items bearing upon the various objectives.
5. The setting up of a trial form of the test, including at least 50 percent more items than will be used in the final form.
6. Submission of the trial form to specialists for criticism.
7. Administration of the experimental form to several groups of pupils who are at the level or levels for which the test is being planned.
8. A statistical analysis of the items in terms of difficulty and validity as measured by a suitable criterion.
9. Selection of the best items for the final form of the test on the basis of the item analysis and the comments of critics who are preferably specialists in the field for which the test is prepared.
10. The scaling of the test on the basis of the performance of a defined criterion group so that it may be compared with other forms of the test and with tests in other fields.

11. The finding of norms for various ages, grades, or years of study.
12. The formulating of precise directions for administering and scoring so that it will be possible for all persons giving the test and scoring it to obtain identical results.
13. The collection and reporting of thorough statistical information on the reliability and validity of the test and the interpretation of these data in terms that persons who are not statisticians can understand.

Thus the construction of a valid achievement test is a painstaking and detailed process calling for the coöperation of many persons. When all these steps are carefully followed by test makers and when the reliability and validity data are favorable, counselors may regard the resulting test with considerable confidence.

## ACHIEVEMENT TEST BATTERIES FOR THE ELEMENTARY SCHOOL

The general achievement tests for the elementary school may be divided into four types: (1) tests in which one battery is intended to serve throughout almost the whole range of the elementary school grades; (2) tests consisting of consecutive or overlapping batteries for different grade levels; (3) tests having a different battery for each grade level; and (4) tests consisting of a lower and a higher battery, each covering a grade range and each divided into a number of separate booklets.

The Modern School Achievement Tests, designed for Grades 2–9, illustrate the first type. The new "multi-level" edition of the Iowa Tests of Basic Skills for Grades 3–9 might also belong to this type, but the pupils at different grade levels are directed to begin and to stop at different places, so that in actual practice these tests function in a manner similar to that of the overlapping battery type. Four well-known achievement test batteries—the Stanford, the Metropolitan, the California, and the American School—represent the second type. The Coordinated Scales of Attainment form the third type, and the fourth is represented by the separate booklet edition of the Iowa Every-Pupil Tests of Basic Skills.

The Stanford Achievement Tests consist of four batteries: Primary, Elementary, Intermediate, and Advanced; the Metropolitan of five: Primary I, Primary II, Elementary, Intermediate, and Advanced; the California of four: Primary, Elementary, Intermediate and Advanced, and the American School Achievement Tests of five batteries: Reading Readiness, Primary I, Primary II, Intermediate, and Advanced.

In general, the one-battery type tends not to be well suited to the lowest and highest grades that it is designed to serve. There is evidence, on the other hand, that the equating between the batteries of some of the existing tests of the overlapping or separate battery type is not very precise and that caution needs to be exercised in drawing conclusions concerning growth of individual pupils on the basis of results from different batteries.

The California Achievement Tests not only cover the elementary school grades but also include a battery for the secondary school. Essentially, the California tests are the Progressive Achievement Tests of the 1930's and 1940's in a new and more attractive cover and format. These tests provide for more detailed diagnosis than do most of the other achievement tests, but they do not include so broad a range of subjects as is found in such tests as the Stanford and Metropolitan Achievement Tests. The tests in the California series are confined to reading, arithmetic, and language usage, while those in the Metropolitan and Stanford batteries cover nearly all the elementary school subjects.

The California test has four forms, except in the Advanced Battery, for which there are three forms; the Stanford test has five forms; the Metropolitan has three forms of the Primary Batteries, four forms of the Elementary Battery, and five forms of the Intermediate and Advanced Batteries; the Coordinated Scales of Attainment, two; the American School Achievement Tests, three; the Iowa Every-Pupil Tests of Basic Skills, four forms, published by Houghton Mifflin Company, and one form for which central scoring is required, published by Science Research Associates; and the new Iowa Tests of Basic Skills, two forms published in 1956 and another form to be published later.

## SECONDARY SCHOOL ACHIEVEMENT TESTS

Comparatively few achievement test batteries similar to those employed at the elementary school level are available for use in secondary school and college. One such battery is the Iowa Tests of Educational Development. There are two editions of this battery, each two containing nine subtests. One of the editions is issued in a single booklet of 56 pages and is distributed for central scoring only; the other is published in nine separate booklets and is available for local scoring.

Another secondary school achievement test battery is the Essential High School Content Battery, devised by David P. Harry and Walter N. Durost. This battery contains four subtests: mathematics, science, social studies, and language and literature, and exists in two forms.

Aside from the batteries named, main reliance for the measurement of achievement of secondary school and college students must be placed upon separate tests for

the different subject fields. Since these tests appear in separate booklets, it is important for a school to choose those which may be referred to a common scale. In other words, use should be made of tests the results of which are expressed in similar terms so that comparisons may be made of students' achievement and progress in different fields of study and guidance planned according to the indicated strengths and weaknesses.

The separate achievement tests for secondary school use are so numerous that an entire book would be required for even a brief statement about each one. The two fields of social studies and natural science alone account for about 500 published tests. Many of these, however, are so carelessly constructed and so inferior that they are worthy of no serious consideration. It is safe to say that there is no high school subject for which more than half a dozen really good, standardized objective tests are available.

During the 1930's one set of tests virtually took command of objective achievement testing in the secondary school and college. This was the extensive series of Cooperative tests produced by the Cooperative Test Service of the American Council on Education under a grant from the General Education Board and now published by the Educational Testing Service. Under the direction of Ben D. Wood and with the assistance of many subject matter and testing specialists, the Cooperative Test Service issued new forms of tests annually from 1932 to 1941 in nearly all academic subjects. World War II necessitated curtailment in the construction of tests for school use.

The earlier forms of nearly all the Cooperative tests were 90 minutes long. After five 90-minute forms had been made for most subjects, the Cooperative Test Service changed in 1937 to production of a series of 40-minute tests that could be administered within the ordinary class period. Several forms of 40-minute tests were made available for nearly all the secondary school subjects. It was found that, by careful selection of the items, tests with reliabilities not greatly lower than those of the 90-minute tests could be produced, except in certain subjects, such as foreign languages, where the 15-minute section for the testing of reading achievement included in the 40-minute French, Latin, German, and Spanish tests has been too brief for high reliability.

An important innovation in connection with the Cooperative tests was the development of a procedure for translating the raw scores into uniform and stable units known as Scaled Scores. This Scaled Score system, which was devised by John C. Flanagan, incorporates the concept of the norm in each individual score and makes possible the comparison of scores on tests in different fields, as well as direct comparability between the results of different forms of the same test. The Scaled Score concept was explained in a bulletin published by the Cooperative Test Service (4) and in a bulletin of the Educational Records Bureau (7).

With the formation of the Educational Testing Service in 1948, through a merger of the testing activities of the American Council on Education, the College Entrance Examination Board, and the Carnegie Foundation for the Advancement of Teaching, the publication and distribution of the Cooperative tests was taken over by the Cooperative Test Division of the Testing Service. Thus far, comparatively few tests or new forms of existing Cooperative tests have been published by the Cooperative Test Division, although a number of other tests are being prepared by the CTD.[1]

Nearly all the Cooperative tests are completely objective and are adapted to machine scoring, as well as to hand scoring.

The Evaluation and Adjustment Series, published by the World Book Company, is another set of separate tests of subject matter taught in high school and junior college. The publication date of these tests is more recent than that of most of the Cooperative Achievement Tests, and for that reason certain ones may be preferable, particularly those in content subjects where a recently prepared test may fit the content of the curriculum better than an older test in the same field.

These tests are designed for use with separate answer sheets for machine scoring. In fact, the use of answer sheets is a requirement for all tests in this series except the Blyth Second-Year Algebra Test, since no provision is made for the recording of responses in the booklets.

Still another set of tests of achievement in high school subjects is the Achievement Examinations for Secondary Schools, Grades 9–12, edited by Walter W. Cook, George McCutcheon, and Gilbert L. Betts.[2]

The annotated list of achievement tests in this chapter is necessarily selected from a much larger possible list. A considerable proportion of the tests listed and briefly discussed are used, or have been used at times, in the fall and spring testing programs of the member schools of the Educational Records Bureau. Thus the comments on many of the tests are based on actual experience and observation of the functioning of the tests in action. The list of secondary school tests is rather heavily weighted

[1] A new revision of the Cooperative series was being planned by the Cooperative Test Division at the time this book went to press. Also the Sequential Tests of Educational Progress, or STEP series of achievement tests, which were designed to parallel the SCAT series of ability tests in Grades 4–14, were on the point of being released by the CTD.

[2] These tests are not annotated in the present book, but information concerning them may be obtained from the Educational Test Bureau, Minneapolis, Minn.

with the Cooperative tests, although a number of other tests are included. This is true especially in the field of reading in which several useful tests, such as the Iowa Silent Reading Tests and the Diagnostic Reading Tests, are available.

No school should be satisfied to depend entirely upon the tests in this annotated list or any other list of standardized tests. Every school needs to supplement objective tests with essay tests and others of its own construction and in line with its own objectives. All schools, too, should be alert to the possibilities for the measurement of some of the less tangible objectives of secondary education through the use of tests similar to those which were developed during the 1930's and early 1940's in the Eight-Year Study of the Progressive Education Association, or by means of essay examinations and semi-objective tests, such as those exemplified in the work of John M. Stalnaker (22, 23), the College Entrance Examination Board, and the tests used each year by the Secondary Education Board.

The achievement tests prepared under the auspices of the United States Armed Forces Institute have played an important part in the guidance of men returning to college and to vocations from the armed services. These tests were published on two levels, high school and college. Each level consisted of two series: tests of general educational development and tests of achievement in different subjects. In the beginning there were two forms of each test: Form A, which was specially reserved for administration by the Armed Forces, and Form B, which was released for civilian use. Form B of the subject tests can no longer be obtained for general use, but this form of the Test of General Educational Development continues to be available.[3] As explained in the annotation later in the chapter, there are now several forms of the GED for use by the Armed Forces.

## ANNOTATED LIST OF SILENT READING TESTS

*American School Reading Tests: Senior High Schools and College Freshmen,* by Willis E. Pratt and Stanley W. Lore. Bloomington, Ill.: Public School Publishing Company, 1955. $2.60 per 25; specimen set, 50 cents.

Forms A and B, for Grades 10 through 13. Working time, 55 minutes. Yields scores for vocabulary, reading rate, and reading comprehension. Reliability (parallel forms method) reported as .953 for vocabulary, .855 for rate, and .978 for comprehension. Public school percentile norms based on rather small number of cases in Grades 10, 11, 12, and 13 are available.

*California Reading Test,* by Ernest W. Tiegs and Willis W. Clark. Los Angeles: California Test Bureau, 1933–51. Four levels: Primary test, Grades 1–4.5; Elementary test, Grades 4–6; Intermediate test, Grades 7–9; Advanced test, Grades 9–14. Test booklets, 7 cents per copy, $2.45 per 35, any level; machine-scorable answer sheets, 4 cents each, elementary, intermediate, and advanced levels; scoring stencils, machine scoring, 60 cents, hand scoring, 20 cents; specimen set, any one level, 50 cents.

These reading tests are a part of the corresponding batteries of the California Achievment Tests, but are also printed in separate booklets. There are three forms of the Advanced test, Forms AA, BB, and CC; and four forms of each of the other three batteries, Forms AA, BB, CC, and DD. The test has two main divisions, reading vocabulary and reading comprehension, each of which is subdivided into several parts. Administration time, 20 to 50 minutes. A graphic profile for each pupil may be drawn on the cover page of the booklet or on the answer sheet. The items in the test are, for the most part, the same as those that appeared in the earlier Progressive Reading Tests. The authors report reliabilities of reading vocabulary, reading comprehension, and total reading score on Form AA ranging from .83 to .93. Reliabilities of brief subtests are probably not very high. High validity is claimed for the tests, but statistical data supporting this claim seem not to be available. There are public school norms for Grades 1–13.

*Cooperative Reading Comprehension Test,* by Frederick B. Davis and others. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1940–53. Test booklets, $2.95 per 25; answer sheets, 90 cents per 25; machine-scoring stencils, 15 cents each; specimen set, 50 cents.

Four available forms: R, T, Y, and Z. Two other forms, Q and S, are out of print. These tests are part of the Cooperative English Test but are also printed in separate booklets. Two levels, $C_1$ for junior and senior high schools and $C_2$ for upper high school grades and college. Each level contains two parts, vocabulary and paragraph reading. Provides scores for vocabulary, speed of comprehension, level of comprehension, and total score. The level score is obtained by means of a repeating-scale technique, which largely eliminates the influence of speed of reading on the results. Working time, 40 minutes. Public school and independent school percentile norms are available.

According to the publisher, the reliability of the total reading score is .94 to .95. Reliabilities reported for the parts vary from .75 to .92. In a study at the Educational

[3] Inquiries concerning the USAFI Tests of General Educational Development, High School and College Levels, Form B, should be addressed to Veterans Testing Service, American Council on Education, Washington, D.C.

Records Bureau, the median of the intercorrelations among the three scores on Form Q was .671. In another study at the Bureau, Coöperative reading scores of boys in Grade 11 of an independent school correlated .613 with teacher's ratings of reading ability as compared with correlations of .511 and .536 between teachers' ratings and Survey Section of Diagnostic Reading Tests and Iowa Silent Reading Tests, respectively (32). A factor analysis of the Coöperative Reading Comprehension Test was made by Davis (6).

*Diagnostic Reading Tests,* by Committee on Diagnostic Reading Tests, Inc. (Frances Oralind Triggs, chairman; Robert M. Bear; Ralph Bedell; John V. McQuitty; George D. Spache; Agatha Townsend; Arthur E. Traxler; and Frederick L. Westover.) New York: The Committee, 419 West 119th Street, 1947–52. Survey Section and four Diagnostic Sections. Specimen set, $4.50; construction and validation booklet, $1.50. Separate answer sheets may be used except with Section IV, Part 1.

*Survey Section:* test booklet, 25 cents each; directions for administering, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents.

*Diagnostic Sections: Section I:* Vocabulary (revised), booklets, 15 cents each; directions, 25 cents; IBM answer sheets, 4 cents each; scoring stencil or fan key, 25 cents.

*Section II:* Comprehension, Part 1, Silent, booklet, 20 cents; directions, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents; Part 2, Auditory, booklet, 15 cents; directions, 25 cents; test paragraphs for Forms A and B, 50 cents; answer sheets 4 cents each; scoring stencil or fan key, 25 cents.

*Section III:* Rates of Reading, Part 1, General, test, 15 cents; directions, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents; Part 2, Social Studies, booklet, 15 cents; directions, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents; Part 3, Science, booklet, 15 cents; directions, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents.

*Section IV:* Word Attack, Part 1, Oral, test, 20 cents; directions, 25 cents; Part 2, Silent, booklet, 15 cents; directions, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents.

Survey Section designed as screening test for all pupils; eight forms, A through H; working time, 40 minutes. Section I: Vocabulary, five scores: English, mathematics, science, social studies, total; Forms A and B; testing time, 40 minutes. Section II: Comprehension, Forms A and B, two parts (Part 1, Silent; Part 2, Auditory); untimed (40–60 minutes). Section III: Rates of Reading, Forms A and B, three parts: Part 1, General, four scores: normal rate of reading, comprehension at normal rate, maximum rate of reading, comprehension at maximum rate; working time, about 30 minutes; Part 2, Social Studies, two scores, rate of reading and comprehension check; working time, about 20 minutes; Part 3, Science, 2 scores, rate of reading and comprehension; working time, about 20 minutes. Section IV: Word Attack, two parts, Part 1, Oral, individual administration, Forms A and B, working time, about 30 minutes; Part 2, Silent, working time, about 30 minutes.

An extensive series of tests constructed by an independent, nonprofit committee whose work was subsidized in the early stages by the Blue Hill Foundation. Tests consist of Survey Section and various Diagnostic Sections designed to be used in studying pupils whose gross weaknesses have been revealed by Survey Section. Public school norms have been prepared for all sections of these tests, although the norms for some of the Diagnostic Sections are not very adequate. Independent school norms for all forms of the Survey Section are available from the Educational Records Bureau. A considerable amount of data on the reliability and validity has been reported by the committee. These data are too varied and detailed for adequate summarization here. In general, reliability coefficients (usually parallel form or Kuder-Richardson) are in the range approximately .80 to .94. Intercorrelations of parts are substantial, but seem low enough to warrant reporting of separate scores except in the case of different kinds of rate measures used. References: the Committee (3) and Triggs (36).

*Diagnostic Reading Tests: Survey Section, Lower Level,* by Committee on Diagnostic Reading Tests, Inc., New York: The Committee, 419 West 119th Street, 1952–56. Three parts published in two booklets for Grades 4–8. Booklet I: Part 1, Word Recognition and Comprehension, test booklet, 20 cents each; directions for administering, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents. Booklet II: Part 2, Vocabulary, and Part 3, Rate of Reading, test booklet, 20 cents each; directions, 25 cents; answer sheets, 4 cents each; scoring stencil or fan key, 25 cents each. Also Section IV: Word Attack, Part 1, Oral, revised (including test paragraphs, Grades 3–12), an individually administered test, test booklets, 20 cents each; directions, 25 cents; Part 2, Silent, test booklets, 15 cents each; directions, 25 cents; answer sheets, each part, 4 cents each; scoring stencil or fan key, 25 cents each; specimen set, each part, including booklets and directions, $1.75.

These tests are designed as a lower level of the Survey Section of the Diagnostic Reading Tests for Grades 7–13. Forms A, B, C, and D. Working time: Booklets 1 and 2, untimed (about 30 minutes for each). Public school and independent school norms are available. Kuder-Richardson and Spearman-Brown odd-even reliabilities of parts fall within the range .82 to .91; reliabilities of total score on Booklet 1, as reported in manual, are from .90 to .93. Correlations with Stanford and Sangren-Woody Reading Tests fall within the range .58 to .77.

*Durrell-Sullivan Reading Capacity and Achievement Tests,* by Donald D. Durrell and Helen Blair Sullivan.

Yonkers, N.Y.: World Book Company, 1937–45. Primary Test (both Capacity and Achievement), $4.30 per 35; Reading Capacity Test, Intermediate, $2.65 per 35; Reading Achievement Test, Intermediate, $3.30 per 35; manual, 25 cents; specimen set, 50 cents each test.

Designed to provide evidence concerning whether reading achievement of an individual pupil is up to his reading capacity. Intermediate test for Grades 3 to 6 and Primary test for Grades 2 to 4. There are two sections, Reading Capacity and Reading Achievement. Primary test and Intermediate Reading Capacity Test available in one form each; Forms A and B of Intermediate Reading Achievement Test. Each section contains a word-meaning part and a paragraph-meaning part. The Reading Achievemnt Test includes a spelling test and a written recall test which may be used at the option of the teacher. From 30 to 45 minutes of working time are required for each booklet. Age and grade norms are available. Reliabilities according to publisher are: reading capacity score, .89 to .94; reading achievement score, .94 to .96; no reliability data are available for subtests.

*Gates Primary Reading Tests,* by Arthur I. Gates. Grade 1 and first half of Grade 2. New York: Bureau of Publications, Teachers College, Columbia University, 1926–43. $1.10 per 35 tests of each type; $28.30 per 1000 tests of each type; specimen set, 30 cents. A revision of the Gates Primary Silent Reading Tests which were first published in 1926.

Three separate booklets: Type 1, word recognition; Type 2, sentence meaning; Type 3, paragraph reading. Working time, 15 minutes for each of first two types and 20 minutes for Type 3. Each type exists in Forms 1, 2, and 3. Public school grade norms based on scores of about 250,000 pupils in schools throughout the country are available. The Educational Records Bureau has fall independent school norms for each of the three forms. No published data on reliability and validity.

*Gates Advanced Primary Reading Tests,* by Arthur I. Gates. New York: Bureau of Publications, Teachers College, Columbia University, 1926–43. Two types, word recognition and paragraph reading. Printed in separate booklets, $1.10 per 35 tests; $28.30 per 1000; 30 cents per specimen set.

These tests are intended for second half of Grade 2 and Grade 3. They fit between the Gates Primary Reading Tests and the Gates Basic Reading Tests. Working time, 15 minutes for Type 1, word recognition; 25 minutes for Type 2, paragraph reading. Data on reliability and validity are lacking, but, as is true of the Primary Reading Tests, experience indicates that these tests are reasonably valid. Public school grade and age norms are available, and the Educational Records Bureau has independent school norms on all forms, 1, 2, and 3.

*Gates Basic Reading Tests,* by Arthur I. Gates. New York: Bureau of Publications, Teachers College, Columbia University, 1926–43. $1.10 per 35 booklets for each form of each type; $28.30 per 1000; specimen set, 30 cents. Designed for Grade 3, second half, through Grade 8.

There are four forms of this test, each consisting of four booklets designed to measure the following types of reading ability: Type A, reading to appreciate the general significance of a paragraph, time, 6 to 8 minutes; Type B, reading to predict the outcome of given events, time, 8 to 10 minutes; Type C, reading to understand precise directions, time, 8 to 10 minutes; Type D, reading to note details, time, 8 to 10 minutes. Norms are provided for each testing time. These tests are a revision of the Gates Silent Reading Tests which were published in 1926. The range of the reliability coefficients reported by the author is as follows: Type A, .83 to .93; Type B., .80 to .94; Type C, .76 to .94; Type D, .88 to .96. The intercorrelations of the four types range from .72 to .92.

*Iowa Silent Reading Tests,* new ed., Elementary test, by H. A. Greene and V. H. Kelley. Yonkers, N.Y.: World Book Company, 1939; revised, 1943. $3.30 per 35 tests; $2.25 per 35 answer sheets; machine keys, 60 cents; specimen set, 35 cents.

A revision of the older form published in 1933. Eight subtests include rate, comprehension, directed reading, word meaning, paragraph comprehension, sentence meaning, and location of information, which consists of alphabetizing, and the use of the index. Forms Am, Bm, Cm, and Dm, yielding comparable results. Working time, 49 minutes. Raw scores are converted to standard scores, thus providing a basis for a profile in graphic form. Hand scoring for all forms; machine scoring for Forms Cm and Bm. The authors' reliabilities for the subtests, found by means of the Spearman-Brown formula, range from .605 for sentence meaning to .939 for alphabetizing. The reliability of the median standard score is reported as .93. Reliability coefficients obtained in a study at the Educational Records Bureau are in rather close agreement with the publisher's reliabilities (25). The Educational Records Bureau has independent school norms for Form Cm.

*Iowa Silent Reading Tests,* new ed., Advanced test, by H. A. Greene, A. N. Jorgensen, and V. H. Kelley. Yonkers, N.Y.: World Book Company, 1939; revised, 1943. $4.45 per 35 tests; $2.25 per 35 answer sheets; machine keys, 60 cents; specimen set, 35 cents.

These tests, which consist of Forms Am, Bm, Cm, and Dm, are similar to the elementary tests just described. There are nine subtests: rate, comprehension, directed reading, poetry comprehension, word meaning, sentence meaning, paragraph comprehension, and location of information, including use of index, and selection of key words. Raw scores may be changed into standard scores and arranged in the form of a graphic profile. Data at the Educational Records Bureau

on independent school pupils indicate that standard scores on the elementary and advanced forms do not seem to be directly comparable. The score on the test as a whole is the median score, or middle one of the nine part scores when they are arranged in order of size. Working time, 45 minutes. According to authors' manual, Spearman-Brown reliabilities of parts range from .683 for poetry comprehension to .871 for word meaning. Reliability of median standard score, .918. Adapted for machine scoring. Independent school norms for all four forms may be obtained from the Educational Records Bureau.

*Nelson-Denny Reading Test,* by M. J. Nelson and E. C. Denny. Boston: Houghton Mifflin Company, 1929–38. $2.70 per 25, including 25 tests and 25 answer booklets; $1.20 per 25 extra answer booklets; specimen set, 27 cents.

This test provides three scores, one for vocabulary, one for understanding of paragraphs, and a total score. The vocabulary test consists of 100 words and the paragraph test contains nine selections with four questions on each. Time limit: vocabulary test, 10 minutes; paragraph test, 20 minutes. Two forms. Responses are recorded on an answer sheet, and scoring is facilitated through the use of the Clapp-Young self-marking carbon paper device. Public school norms for each grade from 9 through college. Independent school norms available at the Educational Records Bureau for Grades 9–12. One of the older reading tests but still useful as a means of surveying reading ability in high schools and colleges. Author's reliability, found by correlating scores made on Forms A and B by college freshmen, .91 ± .01.

*Sangren-Woody Reading Test,* by Paul V. Sangren and Clifford Woody. Yonkers, N.Y.: World Book Company, 1927–28. $3.30 per 35; specimen set, 35 cents.

This reading test is about 30 years old, but results still compare favorably with those of recently published tests. Forms A and B, for use in Grades 4 through 8. Seven parts, including word meaning, rate, fact material, total meaning, central thought, following directions, and organization. Total working time, 27 minutes. There are public school grade norms for each part and for the total score. Independent school norms for Grades 4 to 6 have been prepared by the Educational Records Bureau. Reliability coefficients reported by publisher range from .777 for fact material to .919 for organization. Somewhat lower Spearman-Brown reliabilities for most of the parts were obtained in an unpublished study by the writer. Reliability of total score is above .90. Reference: (17).

*Shank Tests of Reading Comprehension,* by Spencer Shank. Cincinnati: C. A. Gregory Company, 1929. Test I, Grades 3–6; Test II, Grades 7–9; Test III, Grades 10–12. $1.00 per 25.

There are three forms of the test at each of the three levels. Each form contains ten paragraphs. Each paragraph in Test I is followed by questions representing six different types. Seven kinds of questions follow the various paragraphs in Tests II and III. Working time, 20 minutes. End-of-semester public school norms: Test I, Grades 3–7; Test II, Grades 6–10; Test III, Grade 10–college. Educational Records Bureau has independent school norms: Test I, Grades 5–6; Test II, Grades 7–9; Test III, Grades 10–12. Author's reliability for total score: Test I, .90; Test II, .90; Test III, .90. Diagnosis can be made by means of a chart, but this procedure is rather involved. No norms or reliabilities have been reported for the different types of questions.

*SRA Reading Record,* by Guy T. Buswell. Chicago: Science Research Associates, 1947. Reusable test booklet with pin-punch answer pad, 49 cents each; extra answer pads, $2.05 per 20; profile sheets, 50 cents per 20; specimen set, 75 cents.

Grade range, 8–13. One form. Separate answer pads must be used. Designed to measure ten reading skills: rate, general comprehension, paragraph meaning, directory reading, map-table-graph reading, advertisement reading, index usage, technical vocabulary, sentence meaning, and general vocabulary. Also yields a total score based on all subtests except rate. Working time, 28 minutes; overall time, about 40 minutes. Not adapted for machine scoring. Results may be reported in terms of percentile profile. According to the test manual, reliabilities of subtests range from .75 for reading comprehension to .96 for index usage and reading an alphabetical directory. These reliabilities predicted by Spearman-Brown formula may be spuriously high because of speed factor. Reliability of total score, .93. A promising survey test with diagnostic features, although cautious use of the diagnostic scores is advisable until more information concerning reliability and validity is available.

*Traxler Reading Tests,* by Arthur E. Traxler. *Silent Reading Test,* Grade 7–10; *High School Reading Test,* Grades 10–12. Bloomington, Ill.: Public School Publishing Company, 1934–42. $2.75 per 25 copies of either test, or 12 cents per copy in smaller quantities; teacher's handbook, 25 cents each; specimen set, 40 cents.

The Silent Reading Test contains three parts: reading rate and story comprehension, word meaning, and paragraph comprehension. Working time, 46 minutes. Forms 1, 2, 3, and 4, the last two of which are adapted for machine scoring. The High School Reading Test contains two parts: reading rate and story comprehension, and main ideas in paragraphs. Suited to machine scoring. Working time, 45 minutes. Forms A and B. Public school percentiles for part scores and total scores are available for both tests. Independent school percentile norms, for Grades 6, 7, and 8 have been prepared for the lower test at the Educational Records Bureau. Reliability of Silent Reading Test, based on correlations of two forms of the test administered to pupils at a single grade level: average reliability of part scores, .80; total score, .92. Average reliability of part scores in High School Reading

Test, .81; estimated reliability of total score, .93. Correlation with Coöperative Reading Comprehension Test, with time interval of several months, .705; with Diagnostic Reading Tests: Survey Section, .700 (32).

## ANNOTATED LIST OF ORAL READING TESTS

*Gilmore Oral Reading Test,* by John V. Gilmore. Yonkers, N.Y.: World Book Company, 1952. $1.95 per 35 record blanks; set of reading paragraphs, $1.60 each; manual of directions, 45 cents; specimen set, 50 cents.

An individual oral reading test designed for Grades 1–8. Forms A and B. Yields three scores: accuracy, comprehension, and rate. Summary check list of difficulties and errors. Grade equivalents for accuracy and comprehension scores. Requires 15 to 20 minutes for administration. A promising appearing, relatively new oral test on which little research has thus far been done.

*Gray Standardized Oral Reading Paragraphs Test,* by William S. Gray. Bloomington, Ill.: Public School Publishing Company, 1916. $1.40 per 25 tests; 7 cents per copy for smaller quantity; 25 cents per sample set.

One of the oldest existing reading tests but very useful for individual measurement of oral reading ability of elementary school pupils. Twelve paragraphs arranged in order of increasing difficulty. Examiner keeps time and records types of errors. One form, Grades 1–8. Administration time, 3 to 8 minutes.

*Reading Diagnostic Record for High School and College Students,* by Ruth Strang. New York: Bureau of Publications, Teachers College, Columbia University, 1938; revised, 1952. 35 cents per set (manual, record blank, and oral reading passages); 30 cents per set in quantities of ten or more.

A guide for teachers who are making comprehensive study of reading difficulties of individual students. Contains oral reading test consisting of four passages. Manual of directions and 24-page record blank.

*Diagnostic Reading Tests, Section IV, Part 1, Oral,* by Committee on Diagnostic Reading Tests, Inc., New York: The Committee, 419 West 119th Street, 1947. Test booklet, 20 cents, directions 25 cents.

This test was included in the listing of the Diagnostic Reading Tests, but it may be obtained separately from the rest of the battery, if desired.

## ANNOTATED LIST OF READINESS TESTS

*Harrison-Stroud Reading Readiness Tests,* by M. L. Harrison and J. B. Stroud. Boston: Houghton Mifflin Company, 1949–50. $2.40 per package of 25; specimen set 48 cents.

These tests are based on the assumption that readiness to learn to read includes six abilities, as represented by six scores; making visual discriminations with attention span controlled, making visual discriminations with attention span uncontrolled, using the context, making auditory discriminations, using context and auditory clues, and using symbols. A total score is also obtained. One form. For use in kindergarten and beginning of Grade 1. Difficulty level seems somewhat better suited to the kindergarten than to pupils entering the first grade. Working time, 76 minutes. Public school norms are available; independent school norms are gradually being assembled by Educational Records Bureau. Little information on reliability and validity of these tests has been published. For one group of independent school pupils, Spaulding (21) found a correlation of .46 between total score on the Harrison-Stroud Readiness Tests and reading achievement a year later, as measured by the Gates Primary Reading Tests, as compared with a correlation of .59 for a similar group which took the Metropolitan Readiness Tests and the Gates tests with a time interval of one year between these tests.

*Metropolitan Readiness Tests,* by Gertrude H. Hildreth and Nellie L. Griffiths. Yonkers, N.Y.: World Book Company, 1933–50. $4.00 per 35 booklets; specimen set, 35 cents.

Consists of several subtests designed to measure readiness for reading and a number readiness test. Yields a reading readiness score, a number readiness score, and a total score. Working time, about 60 minutes. Forms R and S. There are public school percentile norms for the kindergarten and beginning of Grade 1, and the Educational Records Bureau has independent school norms. Reported alternate-form reliabilities for public school pupils beginning Grade 1 are as follows: reading readiness score, .83; number readiness score, .84; total score, .89. In a study based on 143 independent school pupils entering Grade 1, a Kuder-Richardson reliability coefficient of .85 was obtained for the number readiness test and a reliability of .90 was found for the total score. These reliabilities for public school and independent school pupils are in close agreement, and they are fairly high for tests administered at the beginning of Grade 1. There is some evidence that the Metropolitan Readiness Tests have considerable value for predicting achievement in the primary grades. Correlations of scores of 38 independent school pupils on the Metropolitan Readiness Tests and the Metropolitan Achievement Tests, Primary I Battery, with a time interval of about five months were as follows: reading readiness score vs. reading achievement, .79; num-

ber readiness score vs. number achievement, .64; total readiness score vs. total achievement, .79. For small groups of independent school pupils, significant correlations were also found between Metropolitan Readiness scores obtained at beginning of Grade 1 and achievement on Metropolitan Achievement Tests, Primary II Battery, administered near the end of Grade 2, and achievement on the Metropolitan Primary III Battery given in the latter part of Grade 3 (30).

*New York Test of Arithmetical Meanings,* by J. Wayne Wrightstone, Joseph Justman, Morris Pincus, and Ruth M. Lowe. Yonkers, N.Y.: World Book Company, 1956. $3.40 per 35 Level 1 booklets; $2.90 per 35 Level 2 booklets; 35 cents per specimen set.

This test may serve as both a numbers readiness test and as a test of arithmetical understandings acquired in Grades 1 and 2. One form, two levels. Level 1 is designed to sample concepts acquired before and during the first grade; Level 2 covers arithmetical concepts and processes taught in Grades 1 and 2. Working time, about 60 minutes, arranged in two 30-minute sittings. There are tentative public school percentile norms for each level.

## ANNOTATED LIST OF GENERAL ACHIEVEMENT TESTS, ELEMENTARY SCHOOL

*American School Achievement Tests,* by Robert V. Young, Willis E. Pratt, Carroll A. Whitmer, and Miriam E. Wilt. Bloomington, Ill.: Public School Publishing Company. Rev. Ed. Form D, 1955; Form E, 1956; Form F, 1957. Prices for Forms D and E, Reading Readiness, Kindergarten and Grade 1, $2.50 per 25 tests and accessories; Arithmetic Readiness, Kindergarten and Grade 1, $1.80 per package; Primary battery I, Grade 1, $2.00 per package; Primary battery II, Grades 2–3, $2.50 per package; Intermediate battery, Grades 4–6, $3.45 per package; Advanced battery, Grades 7–9, $3.45 per package; specimen set, each battery, 35 cents.

A series of five levels designed to measure progress in terms of grade and age norms. Reading readiness test contains following subtests: vocabulary, discrimination of letter forms, recognition of letter combinations, recognition of words by selection, discrimination of words by matching, discrimination of geometry forms, following directions, and memory of forms. No time limit. The arithmetic readiness test covers ability to recognize simple quantities, figures, signs, numerical concepts, and addition and subtraction combinations. Primary I battery is planned to measure word recognition, word meaning, and numbers. Total time, about 35 minutes. Primary II battery tests sentence and word meaning, paragraph meaning, arithmetic computation, arithmetic problems, language, and spelling. Working time, not including time for distribution of materials, 65 minutes. Intermediate battery measures sentence and word meaning, paragraph meaning, arithmetic computation, arithmetic problems, language, and spelling. Working time, not including time for distributing materials, 107 minutes. Advanced battery contains same tests as Intermediate battery but more difficult material. Working time, 127 minutes.

Spearman-Brown reliability of reading readiness test reported as .95. Range of reliabilities of subtests in achievement batteries, as reported by publisher, is as follows: Primary I battery, .76 to .96; Primary II battery, .77 to .964; Intermediate battery (parallel forms method), .859 to .938; Advanced battery (parallel forms method), .730 to .855. Since these reliabilities are for subtests and since they are based on intercorrelations of different forms (Intermediate and Advanced batteries), the reliabilities may be regarded as fairly high. The items for the tests seem to have been well chosen, but the norms do not appear to be as adequate or as representative as those for some of the other test batteries.

*California Achievement Tests,* by Ernest W. Tiegs and Willis W. Clark. Los Angeles: California Test Bureau, 1933–51. Primary battery, Grades 1–3 and low 4, test booklets, $4.55 per 35; Elementary battery, Grades 4–6, $4.90 per 35; Intermediate battery, Grades 7–9, $4.90 per 35; Advanced battery, Grades 9–14, $4.90 per 35; IBM answer sheets, 4 cents each for reading, arithmetic, and language parts of Elementary, Intermediate, and Advanced batteries; machine-scoring stencils, $1.40 each for Elementary and Intermediate batteries; $1.80 each for Advanced battery; hand-scoring stencils, 60 cents each for Elementary, Intermediate, and Advanced batteries; specimen set, any one level, 50 cents.

The Primary, Elementary, and Intermediate batteries exist in Forms AA, BB, CC, and DD; the Advanced battery is available in Forms AA, BB, and CC. There are six main subtests in each battery: reading vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, mechanics of English and grammar, and spelling. The first and second tests are combined to provide a total reading score; the third and fourth tests form a total arithmetic score; and the fifth and sixth tests furnish a total language score. There is also a total score on the test as a whole. At each level, there are from two to five subtests in all tests except Test 6, spelling. The raw scores may be translated into grade placement scores by means of a diagnostic profile on the back page of the test booklet. Time limits are approximately as follows: Primary battery, 90 minutes; Elementary battery, 120 minutes; Intermediate battery, 150 minutes; Advanced battery, 150 minutes. Reliability based on average of intercorrelations of forms at single grade level as reported by publishers: Primary battery, total score, .93; range for 6 tests and 3 subtotals, .83 to .95; Elementary battery, total score, .97; range for 6 subtests and 3 subtotals, .88 to .96; Intermediate battery, total, .97; range for 6 tests and 3 subtotals, .89 to .95; Advanced battery, total, .98; range for

six tests and three subtotals, .84 to .93. Reliabilities of subtests not given but probably considerably lower. The reading, arithmetic, and language tests are available in separate booklets, as well as in single booklet covering the entire battery. The California Achievement Tests are a revision of the Progressive Achievement Tests.

*Coordinated Scales of Attainment,* by M. E. Branom, L. J. Brueckner, James A. Fitzgerald, Ellen Frogner, Ullin W. Leavell, Victor L. Lohmann, Ethel V. Nelson, Dora V. Smith, Victor C. Smith, and Edgar B. Wesley, Minneapolis: Educational Test Bureau, 1946–50. Eight batteries covering Grades 1–8. $1.95 per 25 booklets for Grades 1, 2, and 3; $3.20 per 25 for Grades 4 through 8; $1.95 per 25 IBM answer sheets for Grades 4–8; $1.60 per 25 hand scorable answer folders, Grades 4–8; 55 cents for 25 Normal Progress Charts, Grades 4–8; 55 cents per set of scoring keys, Grades 4–8; Master Manual for Grades 1–3 or Grades 4–8, 55 cents each; guide to remedial work, 30 cents; specimen set, $1.00.

Battery I, Grade 1, eight scores; picture-word association, word-picture association, vocabulary recognition, reading comprehension, arithmetic experience, number skills, problem reasoning, and computation. Forms A and B. Estimated working time, 90 minutes. Battery II, Grade 2, nine scores: spelling, in addition to those yielded by Battery I. Forms A and B. Estimated working time, 110 minutes. Battery III, Grade 3, seven scores: picture-word association, word-picture association, vocabulary recognition, reading comprehension, problem reasoning, arithmetic computation, and spelling. Forms A and B. Estimated working time, 100 minutes. Batteries IV–VIII, 11 scores: punctuation, usage, capitalization, reading, history, geography, science, literature, computation, problem reasoning, and spelling. Forms A and B. Estimated working time, 256 minutes.

It is recommended that these tests be administered in several sittings. They are reputed to be power tests, since directions for administration indicate that pupils should work on each part of each battery until approximately 90 percent are through. Results may be interpreted in terms of grade equivalent, age equivalent, and percentile rank. Standardization based on schools in 40 states, presumably distributed according to population. Validity claimed on basis of analysis of state and city courses of study. Reliability coefficients not reported, but following statement appears in supervisor's manual: "The probable error of measurement of each of the attained scores profiled on the Coordinated Scales of Attainment is less than two score units."

*Iowa Every-Pupil Tests of Basic Skills,* by Ernest Horn, Maude McBroom, H. A. Greene, E. F. Lindquist, and H. F. Spitzer. Boston: Houghton Mifflin Company, 1940–47.

*Separate Booklet edition,* two levels, Grades 3–5 and 5–9. Four tests at each level, printed in separate booklets. Elementary Complete battery, $7.35 per 25; single test, $1.95 per 25; Advanced Complete battery, $7.95 per 25; single test, $2.10 per 25; cumulative record forms, 66 cents per 25; manual of general information, 60 cents each; answer sheets for machine scoring, Advanced battery, 75 cents per 25 for Tests A, B, and D, 90 cents per 25 for Test C. Keys for machine scoring, Test A, 21 cents; Tests B, C, and D, 42 cents per set.

A well-constructed set of achievement tests. Forms L, M, N, and O. The skills measured by these tests, which are published in separate booklets, are as follows:

Test A: Elementary battery: reading comprehension and vocabulary; Advanced battery: paragraph comprehension, details, organization, total meaning, total reading comprehension, and vocabulary.

Test B: Elementary battery: map reading, use of references, use of index, use of dictionary, and alphabetization; Advanced battery: comprehension of maps, references, use of index, use of dictionary, and reading graphs, charts, and tables.

Test C: Elementary battery: punctuation, capitalization, usage, spelling, and sentence sense; Advanced battery, similar to the Elementary battery with omission of test of sentence sense.

Test D: Elementary battery, Part I, vocabulary and fundamental knowledge; Part II, computational skill in whole numbers, fractions, and decimals; Part III, solution of problems. Advanced battery similar to Elementary battery except for Part II, which includes whole numbers, fractions, percentage, decimals, and denominate numbers.

Working time: Elementary battery: Test A, 46 minutes; Test B, 47 minutes; Test C, 46 minutes; Test D, 57 minutes; Advanced battery, Test A, 67 minutes; Test B, 77 minutes; Test C, 55 or 58 minutes; Test D, 63 or 68 minutes.

Scores may be expressed in grade equivalents, age equivalents, or percentiles. Results may be graphed to show profile of strengths and weaknesses. Norms based on about 197,000 pupils in approximately 350 schools. There is an extensive manual for administration and interpretation. No statistical data on reliability given in manual, but length of these tests and the care with which they were constructed should assure reliability which compares favorably with that of other achievement test batteries. Likewise, the face validity seems favorable.

*Iowa Tests of Basic Skills: SRA edition,* Grades 5–9, by E. F. Lindquist, with assistance of Ernest Horn, H. F. Spitzer, Maude McBroom, H. A. Greene, Robert L. Ebel, Katharine Hunt, and Julia Peterson. Chicago: Science Research Associates, 1949–50. The four tests of the Advanced battery are published in one booklet. Forms I and II. Separate answer sheets must be used. These tests are not sold outright but are rented for use in a controlled program. All answer sheets must be returned to Science Research Associates for scoring, statistical analysis, and report of results. Prices available on request from SRA.

*Iowa Tests of Basic Skills,* multi-level edition for Grades 3–9, by E. F. Lindquist and A. N. Hieronymus (with assistance of Julia Peterson, Rolland Ray, Leonard Feldt, Miriam M. Bryan, Geraldine Spaulding, Gunnar Sausjord, Betty Humphry, Ruth Miller, and Janet Afflerbach). Boston: Houghton Mifflin Company, 1956. Test booklets (96 pages, all tests in one booklet), 60 cents each; answer sheets, $3.00 per 35 for each grade; scoring masks, 42 cents per set of two for each grade; IBM answer sheets, $1.35 per 35 for each of four main divisions of test; answer keys for scoring IBM answer sheets, 42 cents per set of two; pupil profile charts, 75 cents per 35; pupil report folders, 75 cents per 35; class record sheets, 75 cents per 35.

A new edition of these well-known tests. New test items are used. All tests for all grades from 3 through 9 are in one 96-page booklet. Separate answer sheets must be used. Battery measures vocabulary; reading comprehension; language skills, including spelling, capitalization, punctuation, and usage; work study skills, covering map reading, reading graphs and tables, and knowledge and use of reference materials; and arithmetic, including arithmetic concepts and arithmetic problem solving. Total working time, 279 minutes. Each grade works only on those portions of battery which are of suitable difficulty. Results shown on grade equivalent or percentile profile graph. Forms 1 and 2 published in 1956, and Form 3 scheduled to appear in 1958. A very impressive test battery showing excellent technical competence and splendid test format. Face validity seems high, although no statistical data on validity are in Teacher's Manual or Manual for Administrators, Supervisors, and Counselors. Reported reliability coefficients range from .70 to .96. Reliability of composite is .97 or .98 for single grade range.

*Metropolitan Achievement Tests,* by Richard D. Allen, Harold H. Bixler, William L. Conner, Frederick B. Graham, and Gertrude H. Hildreth. Yonkers, N.Y.: World Book Company, 1931–50. Primary I battery for Grade 1 and beginning of Grade 2, $2.95 for 35 tests; Primary II battery for Grade 2 and beginning of Grade 3, $3.60 for 35 tests; Elementary battery for Grades 3 and 4 and beginning of Grade 5, $4.45 for 35 tests; Intermediate battery for Grades 5 and 6 and beginning of Grade 7, Complete battery, $5.25 for 35 tests; Partial battery, $4.20 for 35 tests; manual for interpreting, 80 cents; Advanced battery for Grades 7, 8, and first half of Grade 9, Complete battery, $5.25 for 35 tests; Partial battery, $4.20 for 35 tests; primary handwriting scale, 30 cents; profile chart, 4 cents each; booklets of norms, 12 cents each; specimen set, 50 cents each battery.

Primary I battery tests word and phrase recognition, word meaning, and numbers; administration time, 60 minutes. Primary II battery tests reading, word meaning, arithmetic fundamentals, arithmetic problems, and spelling; administration time, 100 minutes. Elementary battery tests reading, vocabulary, arithmetic fundamentals, arithmetic problems, language usage, and spelling; administration time, 150 minutes. Intermediate battery tests reading, vocabulary, arithmetic fundamentals, arithmetic problems, English, literature, social studies: history, social studies: geography, science, and spelling; administration time, four hours; literature, social studies, and science are omitted from the Partial battery, for which the administration time is three hours. Advanced battery contains the same kind of tests as the Intermediate battery; administration time is four hours for Complete battery and three hours for Partial battery.

Each of the Primary batteries is available in Forms R, S, and T; the Elementary battery in Forms R, S, T, U; the Intermediate and Advanced batteries in Forms R, S, T, U, and V. Results are expressed in public school grade equivalents and age equivalents, which may be graphed to form a profile of strengths and weaknesses in the different subjects. Independent school percentile norms are available at the Educational Records Bureau for all three forms of the Primary I and II batteries and Form R of the Elementary, Intermediate, and Advanced batteries. One study indicates that this edition is somewhat too easy for more able pupils in upper grades of independent elementary schools (26). Public school norms based on wide sampling of schools throughout the country. Each battery shows average achievement as well as achievement in the different subtests. Range of corrected split-half reliability coefficients of subtests: Primary I battery, .878 to .953; Primary II battery, .852 to .970; Elementary battery .871 to .959; Intermediate battery, .806 to .954; Advanced battery, .800 to .943. The reading and arithmetic tests may be obtained in separate booklets at the elementary, intermediate, and advanced levels. (A new edition of the Metropolitan battery was in preparation at the time this book was published.)

*Modern School Achievement Tests,* Skills Edition, Revised, by Arthur I. Gates, Paul R. Mort, and Ralph B. Spence. New York: Bureau of Publications, Teachers College, Columbia University, 1931–49. $3.10 per 35 booklets; $80.00 per 1000; specimen set, 35 cents.

A revision of the short form of the Modern School Achievement Tests first published in 1931. One battery, two forms, I and II, designed to test reading comprehension, reading speed, arithmetic computation, arithmetic reasoning, spelling. Total administration time, 98 minutes. Raw scores are translated into age and grade equivalents. Test items seem well chosen. Directions for administering and scoring could be improved. Not enough information is given to enable user to determine the adequacy of the norms. No data on reliability or validity given in manual of directions.

*SRA Achievement Tests,* by Louis P. Thorpe, D. Welty Le Fever, and Robert A. Naslund. Chicago: Science Research Associates, 1954–55. Three levels with four tests at each level as follows: Grades 2–4, reading, language arts, arithmetic, and language perception;

Grades 4–6, work study skills, reading, language arts, and arithmetic; Grades 6–9, work study skills, reading, language arts, and arithmetic. Three editions; single booklet, centrally scored form; single booklet, school-scoring form; and separate booklets, school-scoring form. Prices of centrally scored form and service available from SRA on request; single booklet school-scoring edition for Grades 4–6, or for Grades 6–9, test booklets, including four tests, 70 cents each; IBM answer folders, $1.40 per package of 20; hand-scoring stencils, $2.00 per set for each level; machine-scoring stencils, $4.00 per set of eight for Grades 4–6, $3.00 per set of six for Grades 6–9; specimen set of complete battery at each of these two levels, $1.35 (no single booklet edition available for Grades 2–4); separate booklet edition, Grades 2–4, language arts, reading, and arithmetic, test booklets, $1.70 per package of 20 for each of these three fields; language perception, test booklets, 40 cents per package of 20; hand-scoring stencil for each of four tests, $1.00 per copy; specimen set of complete battery, 50 cents; battery for Grades 4–6, $3.55 per 20 booklets of each of the four tests; $3.85 per 100 IBM answer sheets for each test; machine-scoring stencils, $1.00 per set of two for each of four tests; hand-scoring stencils, 50 cents each; battery for Grades 6–9, same prices as for Grades 4–6 battery except that machine-scoring stencils for reading, arithmetic, and work study skills tests are 50 cents each; specimen set, all batteries, Grades 2–9, $3.00; pupil profile cards, set of 20, $2.00.

A well-printed and apparently carefully constructed new achievement test series for Grades 2 to 9 inclusive. The tests need to be administered in several sittings. Total administration time for the four tests is approximately seven hours for the Grade 2–4 battery and six hours for each of the other two batteries. The time required is considerably more than that for the Metropolitan, Stanford, and California Achievement Tests. Public school grade equivalent norms and percentile norms are available for each of the three batteries. Reliabilities (Kuder-Richardson) reported in examiner's manual for the series for Grades 4–6, based on 200 cases at each of the three grade levels, range from .732 to .885 for Grade 4; .756 to .885 for Grade 5; and .789 to .917 for Grade 6. These reliabilities seem moderately satisfactory for the separate tests within a battery, although not especially high in view of the amount of time required in administration. Intercorrelations of the four tests range in the 50's and 60's for the most part, which are about what one would expect for tests in these fields.

*Stanford Achievement Test,* by Truman L. Kelley, Richard Madden, Eric F. Gardner, Lewis M. Terman, and Giles M. Ruch. Yonkers, N.Y.: World Book Company, 1923–55. Four complete batteries and two partial batteries, as well as separate subject tests. Primary battery for end of Grade 1 to middle of Grade 3, $2.75 per 35; Elementary battery for Grades 3 and 4, $3.25 per 35; Intermediate Complete battery for Grades 5 and 6, $5.40 per 35; Intermediate Partial battery, $4.45 per 35; Advanced Complete battery for Grades 7, 8, and 9, $5.40 per 35; Advanced Partial battery, $4.45 per 35; specimen sets, Primary and Elementary batteries, 35 cents each; Intermediate and Advanced batteries, 50 cents each; individual profile chart (all batteries), 2 cents each. Separate Answer Sheet edition (answer sheets required for each pupil tested), Intermediate Partial battery, $4.45 per 35; answer sheets, arithmetic test, $1.50 per 35; reading test, $1.20 per 35; spelling and language usage, $1.50 per 35; set of 5 machine keys, $1.00 per set; Partial battery, prices same as those for Intermediate Partial battery in answer sheet edition.

Primary battery tests paragraph meaning, word meaning, spelling, arithmetic reasoning, and arithmetic computation; total administration time, about 95 minutes. Elementary battery tests paragraph meaning, word meaning, spelling, language, arithmetic reasoning, and arithmetic computation; total administration time, about 150 minutes; Intermediate and Advanced Complete batteries test paragraph meaning, word meaning, spelling, language, arithmetic reasoning, arithmetic computation, social studies, science, and study skills; total administration time, about four hours. The Intermediate and Advanced Partial batteries include paragraph meaning, word meaning, language, arithmetic reasoning, arithmetic computation, and spelling; total administration time, about 2½ hours. All batteries are preferably administered in several sittings.

These tests are the third revision of the Stanford Achievement Tests first published in 1923. There are five forms of all batteries in this series: J, K, L, M, N. Raw scores are translated into grade equivalents and may be graphed in the form of a profile. The national normative group including more than 360,000 pupils from 363 communities distributed throughout the United States was one of the largest and most carefully chosen normative populations ever used in a standardization program. Norms available for both modal age groups and total grade groups.

The Educational Records Bureau has fall and spring independent school percentile norms for the Stanford. An evaluation of the Stanford Achievement Test among independent school pupils, a report of growth trends on this test, and a study of sex differences in achievement as measured by the Stanford have been reported by the Bureau (14, 16, 34). Corrected split-half reliability coefficients for tests in different Stanford batteries range as follows: Primary battery, .664 to .956; Elementary battery, 868 to .953; Intermediate battery, .795 to .933; Advanced battery, 820 to .943. The spelling test appears to be particularly reliable, although some teachers have criticized the multiple-choice form of the spelling test in the new edition.

The reading and arithmetic tests are available sepa-

rately in the booklet edition except at the primary level, and there are separate tests in the machine-scoring answer sheet edition for Grades 5 to 9 inclusive in the following subject areas: reading, arithmetic, science, social studies, and study skills. There are two to four forms of the arithmetic and reading tests in the booklet edition and two forms of the separate tests in the separate answer sheet edition. The Intermediate and Advanced Partial batteries in the separate answer sheet edition exist in three forms: Jm, Km, and Lm.

## ANNOTATED LIST OF ACHIEVEMENT TESTS: SECONDARY SCHOOL AND JUNIOR COLLEGE

### GENERAL ACHIEVEMENT AND GENERAL CULTURE

*Cooperative General Achievement Tests:* Test I, A Test of General Proficiency in the Field of Social Studies, by Jeanne M. Bradford and Elaine Forsyth Cook; Test II, A Test of General Proficiency in the Field of Natural Sciences, by Paul J. Burke, Carl A. Pearson, and John G. Zimmerman; Test III, A Test of General Proficiency in the Field of Mathematics, by Paul J. Burke and Bernice Orshansky. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1940–55. Booklets, $2.75 per 25; machine-scorable answer sheets, 90 cents per 25; scoring stencils, 15 cents each; specimen set, 50 cents. Same prices apply to each of the three tests.

A continuation of the general achievement tests formerly published by the Cooperative Test Service. Three separate booklets, each requiring 40 minutes of working time. Forms Q, R, S, and T out of print; present forms are Y, Z, and XX. Separate answer sheets optional with Forms Y and Z but must be used with Form XX. Each test contains two parts. The first measures knowledge of terms and concepts needed for an understanding of the field for which the test is designed; the second tests the student's ability to read, comprehend, and interpret typical materials in the field. These tests do not measure knowledge of facts and topical content in the three fields. Grades 10–12 and college freshmen. Scaled Scores and percentile norms for high school pupils and entering college freshmen on total scores only are available. No data on validity are available. Publisher reports standard errors of measurement at a Scaled Score of 60 as follows: social studies, three Scaled Score units; science, about 1.7 Scaled Score units; mathematics, about 1.6 Scaled Score units.

*Cooperative General Culture Test,* by Norman J. Blair, Jeanne M. Bradford, Miriam M. Bryan, Paul J. Burke, and Herbert Danzer. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1930–55. $4.95 per 25 tests; $1.90 per 25 answer sheets; scoring stencil, 45 cents per set; specimen set, 50 cents.

Planned to measure the student's general cultural background without regard to course boundaries. Items quite largely factual. Working time, 150 minutes distributed among five 30-minute sections as follows: History and Social Studies, Literature, Science, Fine Arts, and Mathematics. Designed for college students but may also be used with college preparatory seniors near the end of their secondary school course. Widely used in National College Freshman Testing Program and National College Sophomore Testing Program. Separate answer sheets must be used. Present forms are XX, YY, and A. Many earlier forms were prepared by Cooperative Test Service and were extensively used by colleges over a long period. There are college percentile norms for part and total scores. Reliability and validity studies are lacking, but the length of the different sections would probably assure fairly high reliability.

*Essential High School Content Battery,* by David P. Harry and Walter N. Durost. Yonkers, N.Y.: World Book Company, 1951–52. $8.40 per 35 tests; $2.25 per 35 answer sheets; specimen set, 50 cents.

A revision of the Sones-Harry Achievement Test Battery. Consists of four tests printed in one booklet: mathematics, science, social studies, and language and literature. Based on analysis of textbooks and courses of study and opinions of specialists in the different fields. Forms Am and Bm. Designed for Grades 10 to 12 and college freshmen. Working time, four periods of 40 minutes each and one period of 45 minutes, or total of 205 minutes. Scoring by either hand or machine. End-of-year percentile norms for subtests and total scores; midyear percentile norms available on request. Results may be graphed on individual profile chart. Manual of directions reports split-half and alternate form reliability coefficients. Split-half reliabilities of parts computed by separate grade levels range from .76 to .95; alternate form reliabilities range from .67 to .92; total score reliabilities of .95 and .96 were obtained by split-half method. Form Bm slightly easier than Form Am, except in science.

*Iowa Tests of Educational Development,* by E. F. Lindquist, Paul Blommers, Robert Ebel, John Gerber, Julia Peterson, J. William Maucker, and Kenneth W. Vaughn. Chicago: Science Research Associates, 1942–48. A centrally scored single booklet edition (nine tests in 56-page booklet) and a self-scoring separate booklet edition which may be scored locally. Prices of the centrally scored program may be obtained from the publisher on request. Prices of materials for each of the nine tests in the separate booklet edition are as follows: $2.75 per 20 reusable test booklets; $1.95 per 20 self-scoring carbon answer pads; $3.85 per 100 machine-scoring answer sheets; stencils or keys for machine scoring, 50 cents each; extra manual, 25 cents; specimen set, 50 cents each test; $3.00 per set of nine separate tests.

Centrally scored single booklet edition and self-scoring form cover same nine areas as follows: understanding of basic social concepts, general background in the natural sciences, correctness and appropriateness of expression, ability to do quantitative thinking, interpretation of reading materials in the social sciences, interpretation of reading materials in the natural sciences, interpretation of literary materials, general vocabulary, and use of sources of information. Battery yields separate scores for these nine tests plus a composite score on Tests 1–8 inclusive. Results expressed in standard scores which may be graphed on profile form. Range, second semester of Grade 8 through first semester of Grade 13. A well-planned, carefully constructed achievement test battery. Norms based on approximately 50,000 pupils in 290 high schools located in Iowa and neighboring states. Spearman-Brown odd-even reliability coefficients for subtests in single grade range from .81 to .94. Time for administration of complete battery, about 7½ hours.

*United States Armed Forces Institute Tests of General Educational Development.* Washington: Veterans Testing Service of the American Council on Education. Orders, inquiries concerning prices, and requests for additional information should be addressed to Veterans Testing Service.

USAFI Tests of General Educational Development, as well as USAFI subject tests, have had an important place in the history of educational measurement since 1943. Thousands of veterans who were not high school graduates have been admitted to colleges throughout the United States on the basis of these tests. USAFI test results have also been used as guides for placement within colleges. Likewise, in employment situations, many nonhigh school graduates have demonstrated high school equivalency by taking these tests and thus have qualified for jobs calling for high school education.

Two levels, high school and college. There are several equivalent forms of the high school level. Form B is the only one of these which may be purchased by educators for civilian use. Forms C, D, E, and F are administered by official agencies of the Veterans Testing Service. Forms T, V, W, X, Y, and Z are used exclusively within the Armed Services for men on active duty. High school level consists of five tests printed in separate booklets: correctness and effectiveness of expression, interpretation of reading materials in the social studies, interpreparation of reading materials in the natural sciences, interpretation of literary materials, and general mathematical ability. College level includes first four kinds of tests but does not contain test of mathematics. Each test calls for two hours of working time. Separate answer sheets must be used. Results reported in standard scores and percentiles. Regional percentile norms for high school edition and percentiles for college edition arranged according to type of college are available. The USAFI series also includes subject tests and end-of-course tests. Reference is made to the subject tests in the appendix of this book. Extensive fact-finding study of results of these tests reported by Tyler (37); briefer report by a committee of American Council on Education published in 1956 (38). Detailed 1955 normative study by Bloom (1).

## ENGLISH

*Barrett-Ryan-Schrammel English Test, New Edition,* by E. R. Barrett, Teresa M. Ryan, and H. E. Schrammel. Yonkers, N.Y.: World Book Company, 1938–54. Booklets, $3.25 per 35; specimen set, 35 cents; machine-scorable answer sheets, $1.65 per 35.

Five subtests designed to measure functional grammar, the sentence (including parts of speech and parts of a sentence), punctuation, vocabulary, and knowledge of correct pronunciation. Designed for Grades 9–13. Working time, 60 minutes. Scoring is completely objective; planned for use with either hand-scoring or machine-scoring answer sheets. Percentile norms are available for subtests and total scores for Grades 9–12 and college freshmen. Forms Dm and Em. Spearman-Brown split-half reliability coefficients for total score at single grade level range from .88 to .95; alternate form reliabilities, .85 to .88 according to the manual of directions.

*Cooperative English Test,* by Janet Afflerbach, Jeanne M. Bradford, Miriam M. Bryan, W. W. Cook, Herbert Danzer, Charlotte Croon Davis, Frederick B. Davis, Clarence Derrick, Catherine Dodd, Harry R. Neville, Geraldine Spaulding, Paula Thibault, and Mary B. Willis. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1940–53. Test A: Mechanics of Expression, Grades 7–12 and college; Test B1, Effectiveness of Expression, Grades 7–12; Test B2, Effectiveness of Expression, Grades 11, 12, and college; Test C1, Reading Comprehension, Grades 7–12; Test C2, Reading Comprehension, Grades 11, 12, and college. Single booklet edition, $4.95 per 25 tests; answer sheets, $1.90 per 25; scoring stencils, 45 cents per set; specimen set, 50 cents. Test A, $2.25 per 25 tests; 90 cents per 25 answer sheets; scoring stencil, 15 cents; specimen set, 50 cents. Test B1 or B2, $2.50 per 25; 90 cents per 25 answer sheets; scoring stencil, 15 cents; specimen set, 50 cents. Test C1 or C2, $2.95 per 25 tests; 90 cents per 25 answer sheets; scoring stencil, 15 cents; specimen set, 50 cents.

Published at two levels, a lower level for junior and senior high schools, and a higher level for superior students in Grades 11 and 12 and for college. Test A: Mechanics of Expression is the same at both levels. The three parts are available separately or printed together in a single booklet edition. Available forms are T, Y, RX, and Z. Separate answer sheets must be used with Form Z. Working time, 40 minutes for each part, or 120 minutes total. May be scored either manually or by machine. Scaled Scores and public school and college norms are available. The Educational Records Bureau

has independent school norms on all forms. Widely used by schools and colleges throughout the country. Standard error of measurement for the total Scaled Score on the entire English test at a Scaled Score of 50 (the "50-point") is approximately two Scaled Score units for the most recent form, Z, based on the comparable-forms method. Estimated reliability coefficient, .96.[3] Spearman-Brown split-half reliability for total score on Form T based on independent school population, .98.

*Cooperative English Test (Usage, Spelling, Vocabulary)*, by F. S. Beers, M. F. Carpenter, W. W. Cook, E. F. Lindquist, D. G. Paterson, and Geraldine Spaulding. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–39. $2.95 per 25 tests; $1.00 per 25 answer sheets; scoring stencil, 30 cents; specimen set, 50 cents.

This test consists of three parts and provides separate scores for usage, spelling, and vocabulary, as well as a total score. Two machine-scoring forms, OM and PM. Working time, 70 minutes. Public school norms are available for Grades 7 through 12. Most public schools, however, find it better suited for Grade 9 and upward than for Grades 7 and 8. Independent school norms for Grades 8 to 12 are also available, although the other Cooperative English Test, rather than this one, has been used in the more recent independent school testing programs. In addition, there are norms for all college years. Scaled Scores corresponding to raw scores are shown on the scoring keys; also standard errors of measurement. Obtained reliability coefficients for Form O (hand-scoring edition of Form OM, which is no longer in print) reported as .98 for the total score; .95 for usage, .97 for spelling, and .95 for vocabulary. Correlation of English scores with marks of college freshmen reported as .48.

[3] In the years since the Cooperative Test Service issued the booklet of norms for the Cooperative Achievement Tests in 1938, comparatively few reliability or validity data have been reported for the Cooperative tests by the publisher. In lieu of reliability coefficients, standard errors of measurement have been shown graphically on the scoring keys at different points in the range of Scaled Scores. Standard errors of measurement can probably be interpreted in a way that will have more practical meaning for test users than coefficients of reliability. However, standard errors of measurement are not directly comparable with reliability coefficients, at least not for the average user; thus, when most test publishers report reliabilities in terms of coefficients of correlation, and one publisher reports reliability or stability in terms of standard errors of measurement, it is difficult for schools and others choosing among the tests to obtain an idea of the relative stability of the scores obtained with the various measures. (It would be difficult, in any event, because of the number of factors involved, but such comparison is virtually impossible unless the reliability data are expressed in similar terms.) Therefore, in preparing the annotations of the tests, the author of this book estimated from the standard errors at the 50-point reliability coefficients for a considerable number of the Cooperative tests where this kind of data does not seem otherwise to be available. Wherever such estimated reliabilities are reported, it will be stated that they are estimates, and it should be clearly understood that the coefficients given are the writer's own approximations (4).

*Center-Durost Literature Acquaintance Test*, by Stella S. Center and Walter N. Durost. Yonkers, N.Y.: World Book Company, 1953. $3.40 per 35 tests; $1.35 per 35 answer sheets; specimen set, 35 cents.

Designed to measure acquaintance with worth-while books, poems, or plays found in the reading list of the National Council of Teachers of English. Each item consists of a quotation followed by three titles from one of which the quotation was taken. In Evaluation and Adjustment Series. One form intended for Grades 11–13. Working time, 40 minutes. Standard scores and end-of-year percentile norms for Grades 11 and 12 are available. Spearman-Brown split-half reliabilities of .72 and .79 are reported in the manual. These are rather low for interpretation of individual results, although satisfactory for group comparisons.

*Cooperative Literary Comprehension and Appreciation Test*, by Frederick B. Davis, H. A. Domincovich, Hyman Eigerman, and Mary B. Willis. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1941–50. $2.25 per 25 tests; 90 cents per 25 answer sheets; scoring stencil, 15 cents; specimen set, 50 cents.

Designed to measure the student's ability to get the meaning of literary materials and to appreciate their emotional, aesthetic, and rhythmical qualities. Forms R and T. Working time, 40 minutes. Yields one overall Scaled Score. Grades 10–12 and college. Percentile norms for public high schools, colleges, and independent secondary schools. Standard error of measurement at the 50-point of the Scaled Scores, three Scaled Score Units; at the 70-point, four Scaled Score Units. Estimated split-half reliability at the 50-point, approximately .90. Spearman-Brown split-half reliability for total score on Form R based on independent school population, .90.

*Brown-Carlsen Listening Comprehension Test*, by James I. Brown and G. Robert Carlsen. Yonkers, N.Y.: World Book Company, 1953. $1.70 per 35 answer sheets; scoring keys, 20 cents per set; manual of directions, 30 cents; specimen set, 50 cents.

One of the tests in the Evaluation and Adjustment Series. Since administration is entirely oral, test booklets are not required. Test may be given to groups of regular class size. Contains five parts designed to measure immediate recall, following directions, recognizing transitions, recognizing word meanings, and lecture comprehension. Grade range, 9–13. Administration time, 45 to 50 minutes. Percentile norms for total scores.

*Durost-Center Word Mastery Test*, by Walter N. Durost and Stella S. Center. Yonkers, N.Y.: World Book Company, 1953. $3.90 per 35 tests; $1.65 per 35 answer sheets; specimen set, 35 cents.

This test purports to measure general vocabulary level and ability of student to learn meanings of unknown words from context. Same list of words is presented first in multiple-

choice vocabulary test and then in a second testing period with the words used in meaningful sentences. Difference between scores on the two administrations is regarded as measure of pupil's ability to learn meanings from context. In Evaluation and Adjustment Series. Working time, 25 minutes, first testing period; 35 minutes, second testing period. Grade range, 9–12. All responses marked on separate answer sheets. Scoring may be done with perforated stencil key by hand or machine. Public school percentile norms arranged by grade are available.

*Inglis Tests of English Vocabulary,* by Alexander Inglis. Boston: Ginn and Company, 1923–36. $2.28 per 30 tests (lower extension, $1.92 per 30).

One of the older tests but still among the more useful measures of vocabulary power. Consists of 150 multiple-choice items. No time limit. Forms A, B, and C. Based on a sampling of the field covered by the intelligent reader's general vocabulary. Norms for Grades 9–12 and college freshmen and college graduates. Reliability resulting from correlations between the different forms, .90. *Reference:* Inglis (13).

There is a lower extension of the Inglis tests, Forms X and Y, for Grades 6–10, by C. Thomas Downing.

*Michigan Vocabulary Profile Test,* by Edward B. Greene. Yonkers, N.Y.: World Book Company, 1937–49. $3.85 per 35; $1.65 per 35 answer sheets; specimen set, 35 cents.

One of the few vocabulary tests that is long enough to yield reliable diagnostic scores. Contains 240 multiple-choice items covering eight fields: human relations, commerce, government, physical sciences, biological sciences, mathematics, fine arts, and sports. Forms Am and Bm. No time limit, about 50 minutes required for administration. Norms are available for Grades 9–12 and each year of college. Author reports that correlations between subdivisions of two forms range from .87 to .94, with a median of .91. Vocabulary profiles for various groups have been identified. *Reference:* Greene (12).

*Lincoln Diagnostic Spelling Test,* by A. L. Lincoln. New York: Educational Records Bureau, 1941–44. 6 cents per copy; specimen set, 25 cents. (Also published by C. A. Gregory Company, Cincinnati, Ohio.)

Contains 100 words arranged in cycles to cover ten aspects of spelling ability. Four forms for use at junior and senior high school levels. Words chosen from Lester's *A Spelling Review* and Simmons and Bixler's *The New Standard High School Spelling Scale.* No time limit; administration time about 30 minutes. Fall and spring norms for independent school pupils for all four forms; also estimated public school norms. Spearman-Brown split-half reliability of total score, .93. Median reliability of part scores, .66. Diagnosis is based largely on words representing common spelling rules. Parallel forms reliability of total score: Grade 10, .932; Grade 12, .846; Spearman-Brown odd-even reliability: Grade 10, .930; Grade 12, .925. At tenth grade level, reliabilities of parts range from .467 to .804, with median of .688. Correlation of total score with Cooperative English Test A: Mechanics of Expression (which contains a spelling test) found to be .933 in one study. *Reference:* Townsend (24).

*Lincoln Intermediate Spelling Test,* by A. L. Lincoln. New York: Educational Records Bureau, 1947–49. 6 cents per copy; specimen set, 25 cents. (Also published by C. A. Gregory Company, Cincinnati, Ohio.)

Arrangement of 100 words in ten categories of ten words each. Similar to Lincoln Diagnostic Spelling Test but on lower level. Four forms; Grades 4–8. Norms for independent school pupils for both fall and spring; also estimated public school norms. Kuder-Richardson reliabilities of total score, .91 to .95. Correlation with spelling section of Stanford Achievement Test, Advanced Form E, .90, according to one study. *Reference:* Townsend (26).

## FOREIGN LANGUAGES

*Cooperative French Test,* elementary and advanced, by Jacob Greenberg, Geraldine Spaulding, and Paula Vaillant. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1940–41. Elementary form, $2.50 per 25; advanced form, $2.75 per 25; machine-scorable answer sheets, 90 cents per 25; specimen set, 50 cents.

Measures reading, vocabulary, and grammar, and yields separate scores for each of these sections, as well as a total score. A number of forms of this test were constructed, but only Forms Q and R are in print. Working time, 40 minutes. The tests are in two levels, one for students who have had four or more semesters of French and one for pupils with less than that amount. These tests are designated, respectively, as the advanced and elementary forms. The Scaled Scores, elementary and advanced tests, are directly comparable. Public school, independent school, and college percentile norms available for all forms. Corrected odd-even reliability of total score on an earlier form, Form O, which was closely similar to Forms Q and R, was .93 for the elementary test and .97 for the advanced test, according to one study. Reliabilities of Form R estimated from standard errors of measurement at the 50-point of the Scaled Scores: elementary test: reading, .80; vocabulary, .88; grammar, .85; total score, .94; advanced test: reading, .70; vocabulary, .50; grammar, .85; total score, .85. Spearman-Brown split-half reliability for total score on Advanced Form P based on independent school population, .95. Eighty-minute forms of the test measuring comprehension, grammar, and civilization were published for a number of years but have been allowed to go out of print.

*Cooperative Latin Test,* elementary and advanced, by George A. Land. Princeton, N.J.: Cooperative Test Divi-

sion, Educational Testing Service, 1940–41. $2.50 per 25 tests, 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

Measures reading, vocabulary, and grammar; a total score is also provided. Several forms of this test were constructed, but only Forms Q and R are in print. There are two levels, an elementary level for pupils with three semesters of Latin or less and an advanced level for those with more than that amount. Working time, 40 minutes. Public school, independent school, and college percentile norms are available. The Scaled Scores on the two forms and two levels are directly comparable. The corrected odd-even reliability of the total score on Form O, an earlier form which was closely similar to Forms Q and R, was .96 for the elementary test and .94 for the advanced test. Reliabilities estimated from the standard error of measurement at the 50-point of the Scaled Scores: elementary test: reading, .75; vocabulary, .94; grammar, .88; total score, .94; advanced test: reading, .51; vocabulary, .74; grammar, .88; total score, .88. Spearman-Brown split-half reliability for total score on Advanced Form Q, based on independent school population, .94.

*Cooperative Spanish Tests,* elementary and advanced, by E. Herman Hespelt, Robert H. Williams, Geraldine Spaulding, and Jacob Greenberg. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1938–39. Booklets, elementary, $2.50 per 25; advanced, $2.75 per 25; machine-scorable answer sheets, 90 cents per 25; specimen set, 50 cents.

Test consists of three parts: reading, vocabulary, and grammar, and yields a total score also. The test is published in two levels, an elementary level for pupils who have had three semesters or less of Spanish, and an advanced level for those having more than that amount. There were a number of forms of this test, but only two are now in print, Forms O and P. Working time, 40 minutes. Raw scores are translated into Scaled Scores, for which public school, independent school, and college norms are available. Reliability of total score on a similar form, Form O, computed by the method of odd vs. even items, was reported as .93 for the elementary test and .98 for advanced test. Reliability of Form P estimated from standard error of measurement at 50-point: elementary test, reading, .80; vocabulary, .80; grammar, .92; total score, .94; advanced test, reading, .77; vocabulary, .77; grammar, .66; total score, .90.

## MATHEMATICS

*Cooperative Algebra Test,* by Leone E. Chesire, Robert S. Lankton, Margaret P. Martin, Bernice Orshansky, Marion F. Shaycoft, and L. P. Siceloff. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–50. Booklets, $2.50 per 25; answer sheets, 90 cents per 25; specimen set, 50 cents.

Tests basic skills and principles in elementary algebra up to and including quadratics. Three 40-minute forms, T, Y, and Z, are available; other forms out of print. There are both public school and independent school percentile norms for the three forms. Odd-even reliability of an earlier 40-minute form, Form O, reported as .92. Parallel-forms reliability estimated from standard error of measurement at the 50-point of the Scaled Scores as shown on scoring key for Form Z, .75. Spearman-Brown reliability based on scores of 229 independent school pupils on Form Z, .888; median of five correlations between test scores and algebra marks of independent school pupils, .635 (28).

*Lankton First-Year Algebra Test,* by Robert Lankton. Yonkers, N.Y.: World Book Company, 1951, $3.40 per 35 booklets; $1.35 per 35 answer sheets; specimen set, 35 cents.

This test consists of 55 items intended to measure objectives and content of the first course in algebra. In Evaluation and Adjustment Series. Contains questions on vocabulary and symbols of algebra, fundamental operations, formulas, equations, and solution of problems. Working time, 40 minutes. Results reported in standard scores and public school percentile norms for end of year. Forms Am and Bm. Data indicate that results of these two forms are closely comparable throughout the scale. Corrected split-half reliability coefficients of .84 and .87 and an alternate form reliability of .81 reported in manual of directions.

*Cooperative Intermediate Algebra Test,* by M. Isobel Blyth, Leone E. Chesire, John A. Long, Margaret P. Martin, Bernice Orshansky, Marion F. Shaycoft, and L. P. Siceloff. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1938–50. Booklets, $2.50 per 25; answer sheets, 90 cents per 25; specimen set, 50 cents.

This test is similar to the elementary algebra test but includes materials of the typical second course in algebra, quadratics and beyond. Three 40-minute machine-scorable forms, T, Y, Z, are available; several other forms are out of print. Public school and independent school norms. Scaled Scores and standard errors of measurement are given on the scoring keys. Odd-even reliability of earlier 40-minute form, Form O, reported as .93 (4). Alternate-form reliability estimated from standard error of measurement at the 50-point in terms of Scaled Scores is .90. Spearman-Brown reliability based on scores of 207 independent school pupils, .896. Median of four correlations between test scores and algebra marks of independent school pupils, .51 (28).

*Blyth Second-Year Algebra Test,* by M. Isobel Blyth. Yonkers, N.Y.: World Book Company, 1954. $3.05 per 35 test booklets; $1.35 per 35 machine-scorable answer sheets; specimen set, 35 cents.

Planned for use at the end of a second-year course in algebra. In Evaluation and Adjustment Series. Contains 55 items intended to cover the objectives of a typical course. Re-

sponses may be entered in test booklets or on separate answer sheets for machine scoring. Working time, 45 minutes. Forms Am and Bm. Public school percentile norms are available. According to the manual, the reliability coefficients range from .82 to .92 with a median of .88.

*Cooperative Plane Geometry Test,* by John A. Long, Margaret P. Martin, Bernice Orshansky, H. Vernon Price, L. P. Siceloff, and Emma Spaney. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–50. Test booklets, $2.50 per 25; 90 cents per 25 answer sheets; specimen set, 50 cents.

Measures fundamentals of a first course in geometry. Emphasizes logical reasoning and comprehensive understanding of geometric concepts. Does not require formal proofs of theorems. Three 40-minute forms available, T, Y, and Z. Several other forms are out of print. There are public school and independent school norms. Standard errors of measurement, as well as Scaled Scores, are reported on the scoring keys. Odd-even reliability of an earlier 40-minute form, Form O, .89 (4). Parallel-forms reliability estimated from standard error of measurement at 50-point of Scaled Scores on Form Z, .84. Spearman-Brown odd-even reliability based on scores of 210 independent school pupils, Form Z, .90. Median of four correlations between Form Z scores and plane geometry marks of independent school pupils, .65 (27). Equivalence of Forms Y and Z has been questioned by Hoyt and Kellogg; see Buros (2:520–521).

*Seattle Algebra Test,* by Harold B. Jeffery, Earl E. Kirschner, John R. Rushing, David Scott, Philip Stucky, and Otie P. Van Orsdall. Yonkers, N.Y.: World Book Company, 1951. $2.85 per 35 tests; $1.35 per 35 answer sheets; specimen set, 35 cents.

Most standard tests are planned for use at the end of a full year of study or more, but here is a test designed for the end of the first half-year of algebra. In Evaluation and Adjustment Series. Planned to measure knowledge of facts and application of acquired skills and methods. Forty-seven items. Working time, 40 minutes. Forms Am and Bm. Public school percentile norms for end of first half-year. Median of three corrected split-half reliability coefficients reported in manual as .89. Alternate form reliability reported as .87.

*Seattle Plane Geometry Test,* by Harold B. Jeffery, S. L. Merriam, Clifton T. Smith, Roy D. Kellogg, and Richard E. Bennett. Yonkers, N.Y.: World Book Company, 1951. $3.40 per 35 booklets; $1.35 per 35 machine-scorable answer sheets; specimen set, 35 cents.

Designed to measure knowledge and understanding of plane geometry acquired during first half-year of study. In Evaluation and Adjustment Series. Working time, 45 minutes. Forms Am and Bm. Percentile norms for public school pupils at the end of first half year of study. Average of four corrected split-half reliability coefficients reported in manual as .80. Alternate form reliability, .78. Raw scores on the two forms are closely comparable according to the manual.

*Shaycoft Plane Geometry Test,* by Marion F. Shaycoft. Yonkers, N.Y.: World Book Company, 1951. $3.40 per 35 booklets; $1.35 per 35 machine-scoring answer sheets; specimen set, 35 cents.

Planned to measure achievement at the end of a one-year course in plane geometry. In Evaluation and Adjustment Series. Consists of 60 items divided into two parts. Part A is concerned with basic concepts and facts, and Part B with application and reasoning. Working time, 40 minutes. Forms Am and Bm. Manual reports average of three corrected split-half reliability coefficients as .82. Alternate-form reliability, .80. Reliability of combination of two forms, .89 with standard error of measurement of 3.6 standard score points. Scores on the two forms are directly comparable according to the manual. Public school end-of-year percentile norms are available.

*Cooperative Solid Geometry Test,* by John A. Long, H. T. Lundholm, and L. P. Siceloff. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1938–39. $1.75 per 25 test booklets; 90 cents per 25 answer sheets; specimen set, 50 cents.

Emphasizes ability to apply specific skills and information to appropriate problems in three-dimensional space. Forms O and P, each requiring 40 minutes of working time. Public school and independent school percentile norms are available. Scaled Scores and standard errors of measurement are shown on scoring keys. Reliability computed by the method of odd-even items is .90 for Form O (4). Reliability of Form O for a group of 90 independent school pupils, .855. Correlation between test scores and marks in solid geometry for three independent school groups, .458, .475, and .661 (28).

*Cooperative Trigonometry Test,* by John A. Long, L. P. Siceloff, and the Cooperative Test Division Staff. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1950–51. Booklets, $2.50 per 25; answer sheets, 90 cents per 25; specimen set, 50 cents.

Samples definitions, facts, and relationships included in a typical course in plane trigonometry and is appropriate as a measure of final achievement or as a placement test for courses requiring trigonometry as a prerequisite. Two 40-minute forms, U and Y, are available. Several earlier forms are out of print. Public school and independent school percentile norms. Scaled Scores and standard errors of measurement are shown on scoring keys. Odd-even reliability of a comparable earlier form, Form O, .92 for a group of public school pupils (4). Odd-even reliability of Form O based on scores of 74 independent school pupils also .92. Correlation with marks in trigonometry for two class groups of independent school pupils, .654 and .653 (27). Parallel-forms reliability estimated from standard error of measurement at 50-point of Scaled Scores on Form Y is .88.

*Cooperative Mathematics Test for Grades 7, 8, and 9,* by Bernice Orshansky and H. Vernon Price. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1938–48. $2.95 per 25 booklets; 90 cents per 25 answer sheets; 50 cents per specimen set.

Covers skills, terms and concepts, applications, and appreciation. For use in a junior high school mathematics course. Requires 80 minutes of working time. The scope and content of the examination are based on a survey of the objectives of mathematics courses in member schools of the Educational Records Bureau. Earlier forms were constructed by a subcommittee appointed by the Committee on Tests and Measurements of the Bureau. Two available forms, X and Y. Three preceding forms are out of print. Reliabilities (odd-even method) based on scores of 154 pupils in Grade 8 on an earlier form are: total score, .94; Part I, Skills, .88; Part II, Facts, Terms, and Concepts, .69; Part III, Applications, .81; Part IV, Appreciation, .81 (19). Median of five correlations between test scores and school marks in mathematics for independent school groups .819 (28).

*Cooperative General Mathematics Test for High School Classes,* by H. T. Lundholm and L. P. Siceloff. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1938–39. Booklets, $2.25 per 25; answer sheets, 90 cents per 25; specimen set, 50 cents.

Purpose of this test is to afford accurate classification and to measure growth. It samples materials from all mathematics courses usually taught in secondary school. Suitable for high school students who have had three or four years of mathematics or entering college freshmen. Covers interpretation of graphs, use of algebraic symbols, functional relations, geometric relations in two- and three-dimensional space, and trigonometric relations. Machine-scorable Form O, requiring 40 minutes of working time. Differential percentile norms and Scaled Scores based on pupils who have studied three years of mathematics (in Grades 9, 10, and 11) accompany scoring keys. The test-retest reliability with one year elapsing between tests, the pupils being in Grade 10 for the first testing and Grade 11 for the second, is .74 (4).

*Snader General Mathematics Test,* by Daniel W. Snader. Yonkers, N.Y.: World Book Company, 1950. $3.90 per 35 tests; $1.35 per 35 answer sheets; specimen set, 35 cents.

Based on the objectives of a general mathematics course in which materials from the fields of algebra and informal geometry are stressed. In Evaluation and Adjustment Series. Sixty-five multiple-choice items. Forms Am and Bm. Working time, 40 minutes. End-of-year public school percentile norms. Corrected split-half reliabilities of .80 and .84 are reported in the manual. Standard error of measurement is given as 4.8 standard score points. Forms are reported to be closely equivalent in difficulty.

*Cooperative Test in Secondary School Mathematics* (higher level), Forms S and T, by Radcliffe W. Bristol, Robert S. Cowperthwaite, Adele E. Ely, William S. Litterick, Margaret P. Martin, William Mollenkopf, Bernice Orshansky, Eleanor J. Riegel, and Carroll G. Ross. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1942–48. Distributed by the Educational Records Bureau, New York. $2.95 per 25 test booklets; specimen set, 25 cents.

Two hand-scoring forms planned to cover the mathematics taught in Grades 10, 11, and 12. Includes plane geometry, intermediate and higher algebra, solid geometry, and trigonometry. Emphasizes items calling for ability to do sustained mathematical thinking. No Scaled Scores or public school norms. Independent school norms are available from the Educational Records Bureau. Median correlation between test scores and school marks in mathematics is .66 based on nine independent school classes (8).

*Davis Test of Functional Competence in Mathematics,* by David J. Davis. Yonkers, N.Y.: World Book Company, 1951. $3.90 per 35 booklets; $1.35 per 35 answer sheets; specimen set, 35 cents.

One of the tests in the Evaluation and Adjustment Series. Designed to measure essentials of functional competence in mathematics outlined by Commission on Post-War Plans of the National Council of Teachers of Mathematics. Eighty multiple-choice questions. Forms Am and Bm. Working time, 80 minutes. Grades 9–13. Yields standard scores for which there are middle and end-of-year percentile norms for each grade from 9 through 12. Eight corrected split-half reliability coefficients, each computed on pupils in single grade, range from .81 to .91 according to directions manual. Standard error of measurement about five standard score points.

*A Brief Survey of Arithmetic Skills for Grades 5 to 12, Revised,* by Arthur E. Traxler. New York: Educational Records Bureau, 1953. Six cents per test; specimen set, 25 cents. (Also published by C. A. Gregory Company, Cincinnati, Ohio.)

Designed to provide quick and inexpensive, yet dependable, measurement of fundamental arithmetic skills. Forms A and B. Each form contains two parts: Part 1, 40 computation problems; Part 2, ten reasoning problems. Working time, 20 minutes. Median of three corrected split-half reliability coefficients computed at single grade levels, .87; median of four alternate form reliabilities, .75. Data from 127 pupils in Grades 10 and 11 who took both Forms A and B indicate that Form B is slightly easier than Form A, but that difference at median is less than one raw score point. Correlation of total score with Stanford arithmetic, .70. Twenty correlations of total scores with marks in arithmetic or secondary school mathematics range from .25 to .82, with median of .60. All these data based on results for independent school pupils (33).

## SCIENCE

*Cooperative General Science Test,* by Paul E. Kambly and Carl A. Pearson. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–51. Booklets, $2.75 per 25; answer sheets, 90 cents per 25; specimen set, 50 cents.

This test is comprehensive and is designed to cover a wide enough area to be useful with groups whose instructional backgrounds vary widely. Items are of multiple-choice and matching types and in some cases involve understanding of diagrams and identification of objects in sketches. Forms X, Y, and Z. Several earlier forms are out of print. Working time, 40 minutes. Public school and independent school norms are available. Scaled Scores and standard errors of measurement are provided on the scoring keys. Reliability based on odd versus even items for an earlier form, Form O, .89 (4). Parallel-forms reliability estimated from standard error of measurement at 50-point of Scaled Scores, .84. Spearman-Brown split-half reliability for total score on Form Z based on independent school population, .92.

*Cooperative Science Test for Grades 7, 8, and 9,* by Paul E. Kambly. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1941–48. Test booklets, $2.95 per 25; machine-scoring answer sheets, 90 cents per 25; specimen set, 50 cents.

Consists of two 80-minute forms, X and Y, each divided into three parts: Part I, Informational Background; Part II, Terms and Concepts; and Part III, Comprehension and Interpretation. Two earlier forms, R and S, are out of print. Designed to measure knowledge of elementary scientific principles and understanding of natural phenomena of the physical world. Scaled Scores and public school and independent school norms are available. Standard errors of measurement shown on scoring key. Reliability coefficients estimated from standard errors of measurement at 50-point of Scaled Scores: Part I, .94; Part II, .90; Part III, .80; total, .97. Spearman-Brown split-half reliability for total score on Form Y based on independent school population, .93.

*Read General Science Test,* by John G. Read. Yonkers, N.Y.: World Book Company, 1950–51. $3.90 per 35 booklets; $1.35 per 35 answer sheets; specimen set, 35 cents.

A test in the Evaluation and Adjustment Series. Like other tests in this series, separate answer sheets must be used. Intended as a measure of basic facts and principles of the physical and biological sciences and their applications in a general science course. Seventy-five objective test items. Forms Am and Bm. To be used at end of high school general science course. Working time, 40 minutes. Public school percentile norms are available. Manual reports corrected split-half reliability of .85 and higher.

*Cooperative Biology Test,* by Paul E. Kambly. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–48. Booklets, $2.75 per 25; answer sheets, 90 cents per 25; specimen set, 50 cents.

Based on materials in a typical high school biology course. Two parts: Part I, multiple-choice questions largely factual; Part II, reading passages and diagrams followed by questions on understanding of principles and ability to apply principles. Working time, 40 minutes. Results reported in terms of Scaled Scores for which public school percentile norms are available. Intended for use near end of high school biology course. Forms X and Y. Several earlier forms are out of print. Corrected odd-even reliability for one of the earlier forms, Form O, quoted as .94 (4).

*Cooperative Biology Test,* Educational Records Bureau edition, by Thomas F. Morrison, Virginia F. Babcock, John K. Bodel, Jr., Donald H. Miller, Charles Tanzer, and Robert F. Woodworth. New York: Educational Records Bureau, 1941–50. $2.75 per 25 booklets; specimen set, 25 cents.

Devised by the Committee on Biology Tests of the Educational Records Bureau. Based on the objectives and curricula of college preparatory schools. Revised 1948–50. Forms ERB-RX, ERB-SX, and ERB-TX, each requiring 40 minutes of working time. Hand scored. Independent school percentile norms are available. No Scaled Scores or public school norms. Kuder-Richardson reliability of Form ERB-RX based on 256 independent school biology students, .868. Correlations of total scores on Form ERB-RX with marks of pupils in ten biology classes in independent school range from .221 to .759, with median of .673 (31). A second revision of this test was under way at the time this book was published.

*Nelson Biology Test,* by Clarence H. Nelson. Yonkers, N.Y.: World Book Company, 1951. $3.90 per 35 tests; $1.35 per 35 answer sheets; specimen set, 35 cents.

Measures knowledge and understanding of facts, principles, and concepts in usual biology course and ability to apply them. Two comparable forms, Am and Bm, each containing 75 objective questions. In Evaluation and Adjustment Series. Separate answer sheets must be used. For use near end of high school biology course. Working time, 40 minutes. Standard scores and end-of-year public school percentile norms are available. Manual reports corrected split-half reliability coefficients of .87 and .88; alternate form reliability of .77. Apparently a well-designed test.

*Cooperative Chemistry Test,* by Paul J. Burke and Joseph F. Castka. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–48. $2.75 per 25 booklets; 90 cents per 25 answer sheets; specimen set, 50 cents.

Intended for use near end of typical high school chemistry course. Two parts: Part I, knowledge of basic chemistry facts; Part II, laboratory procedures and interpretation of reading passages, graphs, and tables. Three forms (40-minute), X,

Y, and Z. Several earlier forms are out of print. Scaled Scores and standard errors of measurement given on scoring key. End-of-year public school percentile norms. Reliability of an older form, Form O, reported as .92 (4).

*Cooperative Chemistry Test,* Educational Records Bureau edition, by Charles L. Bickel, Otis E. Alley, W. Gordon Brown, and Curtiss S. Hitchcock. New York: Educational Records Bureau, 1941–50. $2.75 per 25 tests; specimen set, 25 cents.

Devised by Committee on Chemistry Tests of Educational Records Bureau. Based on objectives and curricula of college preparatory schools. Revised 1948–50. Forms ERB-RX, ERB-SX, ERB-TX, each requiring 80 minutes of working time. Hand scored. Independent school percentile norms available. No Scaled Scores or public school norms. Kuder-Richardson reliability of Form ERB-RX based on 203 chemistry students in independent schools, .924. Correlations of total scores with school marks in chemistry in ten independent schools range from .406 to .917, with median of .771. This median is definitely high for correlations between test scores and school marks (31). A second revision of this test was being prepared when this book was published.

*Anderson Chemistry Test,* by Kenneth E. Anderson. Yonkers, N.Y.: World Book Company, 1951. $3.90 per 35 booklets; $1.35 per 35 answer sheets; specimen set, 35 cents.

Based on objectives of high school chemistry course. Comparable forms, Am and Bm, each requiring 40 minutes of working time and consisting of 80 multiple-choice items. Intended for use near end of high school chemistry course. In Evaluation and Adjustment Series. Separate answer sheets must be used. There are standard scores and public school end-of-year percentile norms. Manual reports corrected split-half reliability coefficients of .90 and .93; alternate-form reliability of .87. Seems, in general, to be one of the better chemistry tests, although some inaccuracies noted by one reviewer. See Buros (2:632–633).

*Cooperative Physics Test,* by Paul J. Burke. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–48. $2.75 per 25 booklets; 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

This test attempts to measure knowledge of and ability to think in terms of the subject matter of a typical high school physics course. Suitable for use near end of course. Three 40-minute machine scorable forms, X, Y, and Z. Several earlier forms are out of print. Raw scores translated into Scaled Scores for which public school percentile norms have been prepared. Reliability of a similar earlier form, Form O, quoted as .92 (4).

*Cooperative Physics Test,* Educational Records Bureau edition, by Lester D. Beers, William S. Burton, Forrest W. Cobb, Roberta G. Poland, and Richard G. Sagebeer. New York: Educational Records Bureau, 1941–50. $2.75 per 25 booklets; specimen set, 25 cents.

Devised by Committee on Physics Tests of Educational Records Bureau. Based on objectives and curricula of college preparatory schools. Revised, 1948–50. Forms ERB-RX, ERB-SX, ERB-TX, each requiring 80 minutes of working time. Hand scored. Independent school percentile norms are available. No Scaled Scores or public school norms. Kuder-Richardson reliability of Form ERB-RX for 209 independent school physics students, .854. Correlations of total scores on Form ERB-RX with marks in physics for pupils in ten independent schools range from .348 to .812, with median of .573 (31). A second revision of this test had been started when this book was published.

*Dunning Physics Test,* by Gordon M. Dunning. Yonkers, N.Y.: World Book Company, 1950. $3.90 per 35 test booklets; $1.35 per 35 machine-scoring answer sheets; specimen set, 35 cents.

A test in the Evaluation and Adjustment Series constructed to measure achievement of objectives of high school physics course. Forms Am and Bm, each including 75 objective items. Working time, 45 minutes. Results expressed in terms of standard scores for which end-of-year public school percentile norms are available. Corrected split-half reliabilities of .90 and .86 are reported in manual. Standard error of measurement, 3.8 standard score points.

## SOCIAL STUDIES

*Cooperative American History Test,* by Harry D. Berg. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–51. $2.75 per 25 test booklets; 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

Constructed to measure knowledge and understanding of material covered in secondary school classes and elementary college courses. Includes applications, interpretations, and drawing conclusions, as well as basic facts and trends. About half the questions are on the period since 1865. Three available 40-minute machine-scorable forms, X, Y, and Z. Several earlier forms are out of print. Reliability of one of earlier forms, Form O, quoted as .87 (4). Parallel-forms reliability estimated from standard error of measurement at 50-point of Scaled Scores on Form Z estimated at .84. Percentile norms for public high school, independent school, and college classes are available.

*Crary American History Test,* by Ryland W. Crary. Yonkers, N.Y.: World Book Company, 1950–52. $3.40 per 35 booklets; $1.35 per 35 answer sheets; specimen set, 35 cents.

Designed to measure knowledge of historical facts, understanding and interpretation of historical information, and

reasoning. One of the tests in Evaluation and Adjustment Series. Separate answer sheets must be used. Working time, 40 minutes. Two comparable forms, Am and Bm, each containing 90 objective items. Results expressed in terms of standard scores for which end-of-year public school percentile norms are available. Independent school norms also available. Corrected split-half reliability coefficients of .87 and .91 are reported in the manual. Corrected split-half reliabilities of .92 and .89 were obtained by Educational Records Bureau for Forms Am and Bm, respectively, based on scores of independent school pupils. Correlations of test scores with school marks in 20 independent school classes in American history range from .36 to .86, with a median of .60 (5, 31).

*Cooperative Ancient History Test,* by Howard R. Anderson, Charlotte C. Davis, E. F. Lindquist, and Wallace Taylor. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1938–39. $2.50 per 25 test booklets; 90 cents per 25 machine-scoring answer sheets; specimen set, 50 cents.

This test measures the evaluation and understanding of fundamental movements and institutions as well as of personages, locations, and specific events important for an understanding of the major social problems in ancient times which are significant for the present. Two 40-minute forms, O and P, which grew out of earlier 90-minute forms. Intended for use near end of course in high school ancient history. Results are expressed in terms of Scaled Scores for which public school and independent school norms are available. Corrected odd-even reliability is reported as .93 (4).

*Cooperative Modern European History Test,* by Frederick H. Stutz. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1937–51. $2.75 per 25 booklets; 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

This test is designed to measure a pupil's ability to relate various personages, historical and geographical terms, dates, and events to the fundamental movements and institutions of modern Europe. Covers historical developments from Middle Ages to period following World War II. Suitable for use in modern European history classes in high school and elementary college classes. Two 40-minute machine-scorable forms, X and Y. Several earlier forms are out of print. Raw scores are translated into Scaled Scores. There are public school and independent school percentile norms. Reliability of earlier Form O quoted as .91 (4). Split-half reliability estimated from standard error of measurement at 50-point of Scaled Scores, .90. Spearman-Brown split-half reliability for total score on Form X based on independent school population, .84.

*Cooperative Social Studies Test for Grades 7, 8 and 9,* by Harry D. Berg, Elaine Forsyth Cook, and Eunice Ann Boyd. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1941–48. Test booklets, $2.95 per 25; specimen set, 50 cents; machine-scoring answer sheets, 90 cents per 25.

Two 80-minute forms, X and Y. Three parts: (1) informational background, (2) terms and concepts, (3) comprehension and interpretation. Earlier forms are out of print. Includes concepts of American history, world history, geography, and civics. Yields part and total Scaled Scores for which public school and independent school percentile norms are available. Standard errors of measurement shown on scoring key. Reliability of total estimated from standard error of measurement at 60-point of Scaled Scores, .92. Spearman-Brown split-half reliability based on scores of 126 independent school pupils in Grade 8, .95.

*Cooperative World History Test,* by Frederick H. Stutz and Wallace Taylor. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1934–51. $2.75 per 25 booklets; 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

Constructed to measure knowledge and understanding of basic historical developments throughout the period of recorded history but with a good deal of emphasis on the present century. Intended for use near end of high school course in world history. Three 40-minute forms, X, Y, and Z, are available. Several earlier forms are out of print. Raw scores are converted into Scaled Scores for which public school and independent school percentile norms may be obtained. Reliability estimated from standard error of measurement at 50-point of Scaled Scores, .84.

*Cummings World History Test,* by Howard H. Cummings. Yonkers, N.Y.: World Book Company, 1951. $3.90 per 35 booklets; $1.35 per 35 machine-scorable answer sheets; specimen set, 35 cents.

Designed to measure factual knowledge of world history and understanding of great movements and social trends in development of civilization. Two comparable forms, Am and Bm, each comprising 80 test items and calling for 40 minutes of working time. In Evaluation and Adjustment Series. Raw scores are translated into standard scores for which end-of-year public school percentile norms are available. There are also independent school percentile norms based on April testing program of Educational Records Bureau. Corrected split-half reliabilities of .91 and .94 are reported in the manual. Corrected split-half reliability coefficient of .89 found for independent school group where the range may be somewhat more restricted than is the case with a sample drawn from public schools. Correlations of test scores with grades in world history in ten independent schools range from .36 to .81, with a median of .65 (35). The test seems comparatively valid and reliable for a test of content designed for a single class period.

*Cooperative Test of Social Studies Abilities,* by J. Wayne Wrightstone. Princeton, N.J.: Cooperative

Test Division, Educational Testing Service, 1936–39. $2.95 per 25 booklets; 50 cents per specimen set.

Designed to determine the extent to which students have acquired the skills basic to effective work in the social studies. The various parts of the test measure ability to (1) obtain facts from tables, graphs, charts, and diagrams; (2) organize facts by relating given statements to various topics and by making brief outlines; (3) interpret facts by drawing conclusions from given data; and (4) apply generalizations by checking the reasons certain generalizations can be made. Form Q only. Experimental Form 1936 is out of print. Working time, 80 minutes. Not machine scorable. There are median scores for a number of public school groups in Grades 7 through 12. Fall independent school percentile norms are available for Grades 9–12. Spearman-Brown odd-even reliability of total score for independent school twelfth-grade pupils found to be .972; reliability of parts, .830 to .966. Correlations with four tests in social studies field range from .47 to .75. Correlations of total scores on social studies abilities test with total scores on ACE Psychological Examination range from .70 to .78 for single grade groups at secondary school level (20).

*Cooperative Test in American Government,* by John Haefner. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1947–48. $2.75 per 25 test booklets; 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

Constructed to measure factual knowledge and critical judgment of pupils in high school American Government courses. Machine-scorable Forms X and Y, for which Scaled Scores are provided. Working time, 40 minutes. Percentile rank tables are available for twelfth-grade public high school pupils and for independent school pupils. Standard error of measurement at 50-point is about 3.5 Scaled Score units. Estimated reliability coefficient approximately .88. Test is rather difficult for average high school class.

*Dimond-Pflieger Problems of Democracy Test,* by Stanley E. Dimond and Elmer F. Pflieger. Yonkers, N.Y.: World Book Company, 1952. $3.40 per 35 test booklets; $1.35 per 35 machine-scorable answer sheets; specimen set, 35 cents.

One of the tests in the Evaluation and Adjustments Series. Planned to measure objectives of course in problems of democracy as indicated by analysis of topics in 15 textbooks. Includes government, economics, sociology, and international affairs. Forms Am and Bm, each requiring 40 minutes of working time. Standard scores and end-of-course percentile norms for public schools are available. Also some tentative independent school norms for small sample may be obtained from Educational Records Bureau. Corrected split-half reliability coefficients of .90 and .86 reported in manual. Alternate form reliability .81. Correlations of test scores with course grades in small classes in three independent schools .40, .71, and .71 (15).

### HEALTH

*Kilander Health Knowledge Test,* by H. F. Kilander. Yonkers, N.Y.: World Book Company, 1951. $3.40 per 35 test booklets; $1.35 per 35 machine-scorable answer sheets; specimen set, 35 cents.

Designed to measure knowledge and understanding relative to health practices rather than the individual's actual practices. Covers general topics concerning health, knowledge of human physiology, and knowledge and judgment concerning health attitudes and procedures. In Evaluation and Adjustment Series. Separate answer sheets must be used. Forms Am and Bm. Working time, 40 minutes. Standard scores and end-of-year public school percentile norms. Independent school norms based on rather small groups are also available. Corrected split-half reliability coefficients of .88 and .86 reported in manual. A corrected split-half reliability coefficient of .82 was obtained by Educational Records Bureau on basis of scores of 199 independent school twelfth-grade pupils.

### SHORTHAND

*Turse-Durost Shorthand Achievement Test,* by Paul L. Turse and Walter N. Durost. Yonkers, N.Y.: World Book Company, 1941. $2.50 per 35 test booklets; specimen set, 35 cents.

An objective test of shorthand achievement. Includes language, shorthand principles, and shorthand penmanship. Form A only. Hand scored. Working time for first-year students, 50 minutes; second-year, 44 minutes. Percentile norms for end of first year and end of second year. Split-half reliabilities, .93 and .94, as reported by authors.

## TESTS FOR SPANISH-SPEAKING CHILDREN

*Cooperative Inter-American Tests,* prepared under the auspices of the Committee on Modern Languages of the American Council on Education, Herschel T. Manuel, Director of Test Construction. Princeton, N.J.: Cooperative Test Division, Educational Testing Service, 1950.

*Tests of General Ability,* Primary, Grades 1–3; Intermediate, Grades 4–7; Advanced, Grades 8–13. English and Spanish editions at all three levels. $2.50 per 25 test booklets of either edition at any level; $1.00 per 25 answer sheets at Intermediate and Advanced levels. Specimen set, 50 cents for any level.

*Tests of Reading,* Primary, Grades 1–3; Intermediate, Grades 4–7; Advanced, Grades 8–13. English and Spanish editions at all 3 levels. $2.25 per 25 booklets of either edition at Primary level; $2.50 per 25 booklets of either edi-

tion at Intermediate and Advanced levels; answer sheets, 90 cents per 25 each level; specimen set, 50 cents for each level.

*Tests of Language Usage, Natural Sciences, and Social Studies,* Grades 8–13. English and Spanish editions. $2.50 per 25 booklets of either edition of any of the three tests; 90 cents per 25 machine-scorable answer sheets; specimen set, 50 cents.

These tests were constructed in a comprehensive project carried on under the general direction of the Committee on Modern Languages of the American Council on Education. Designed especially for use in bilingual situations and in the placement of students from Spanish-speaking countries. Parallel forms, A and B, are available in both Spanish and English. The tests include (1) general ability, (2) reading ability, and (3) general achievement in social studies, natural sciences, and language usage. Working time for most of the tests is from 30 to 40 minutes; reading tests in the primary grades, 16 minutes. A practice test, which is to be given before each of the regular tests, requires about five minutes for any one part. The only norms available at present are approximate median scores for beginning of Grade 1 and for second semester of Grades 1 through 12 for both English and Spanish editions based on results of earlier forms administered in Mexico, Puerto Rico, and the United States. Nevertheless, experience indicates that these tests are useful in obtaining an idea of the potential of Spanish-speaking children and young people applying for admission to schools and colleges in the United States. General information about entire series given in Master Manual available at cost of 50 cents.

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CHAPTER VII

# *Appraisal of Personal Qualities and Interests: Tests and Inventories*

Accurate, objective information in regard to aptitude and achievement, such as may be obtained from the tests listed in Chapters V and VI, is very important in a guidance program, but it fills in only part of the picture for each individual pupil. Most teachers and guidance officers are aware that personal qualities and interests are fully as important in a pupil's academic and out-of-school adjustment as are those more easily measured factors of intelligence and achievement. There is an increasing demand for valid and reliable records of personality development to assist the school in its guidance program.

There are three broad approaches to the evaluation of personal qualities. One of these is by means of tests, usually of the paper-and-pencil sort. A second is by means of more informal procedures involving anecdotal records, ratings, descriptions of behavior, and sociometric devices. A third approach is through the use of projective techniques of a laboratory or clinical nature.

Under ideal conditions, anecdotal records, rating devices, and behavior descriptions undoubtedly have more to offer to a guidance program than do personality tests which, for the most part, are still in an experimental stage in that their validity has not been clearly established. The more informal devices are, however, much more time-consuming than tests, and it is probable that for some time to come many schools which have established guidance programs will not be able to employ informal evaluative procedures on a school-wide basis until a long and thorough program of teacher education in guidance philosophy has taken place. In the meantime, personality and interest inventories furnish almost the only available means of systematically collecting helpful, although admittedly inadequate and imperfect, information in this important area.

In the hands of well-trained clinical psychologists and psychiatrists, projective techniques, as, for example, the Rorschach and the Thematic Apperception Test, are probably the most revealing of all devices for use in studying personality. It is to be noted, however, that it is the expertness of the personnel using these devices, not the devices as such, which lends special validity to their employment in the study of personality. The great majority of schools do not yet employ such specialists, and large numbers do not have access to these kinds of service in their own community, in their own county, or even in their own geographical area. Without expertness in their administration, interpretation, and application, the more esoteric projective techniques are likely to be ineffective, or dangerous, or both.

## EXTENT OF ATTEMPTS TO MEASURE PERSONALITY

Notwithstanding the nebulousness of this field, there have been numerous attempts to devise instruments for the appraisal of personality. In 1932 Maller (76) published a bibliography of some 300 character and personality tests. Hildreth's *A Bibliography of Mental Tests and Rating Scales* (53), published in 1933 and revised in 1939, contained 402 titles dealing with the broad field of character and personality, and a supplement (54) issued in 1945 added 169 titles. Buros' *Fourth Mental Measurements Yearbook* (18) added 62 tests in the field of character and personality, attitudes and opinions, interests, and social adjustment published since 1945. A fair estimate of the number of published tests and inventories loosely classifiable under the heading of person-

which the subject is asked to tell a story about or to explain. Buros' *Third* and *Fourth Mental Measurements Yearbooks* present a bibliography of 299 items pertaining to this comparatively recent test (*17*:202–204; *18*:263–267). The use of the TAT is somewhat less involved and difficult than the Rorschach, but it is definitely a clinical instrument and not one for ordinary school use. A detailed and helpful manual for the test was published by Tomkins (*110*).

Among the other free association or projective tests which have become available fairly recently in the United States are the Rosenzweig Picture-Frustration Study (*96*), which exists in a form for children and a revised form for adults; the Horn-Hellersberg Test (*50*), which is based on drawings from the Horn Art Aptitude Inventory and is designed for ages 3 and over; the Szondi Test (*29*), an involved clinical instrument devised by the Rumanian psychologist, Lipot Szondi, and introduced to this country by Susan K. Deri; the Draw-A-Person Quality Scales by Wagner and Schubert (*117*); the Blacky Pictures, a set of 12 cartoons showing the adventures of a dog named Blacky and Blacky's family; and the Rotter Incomplete Sentences Blank. The last two instruments are published by The Psychological Corporation.

## DISGUISED AND PARTIALLY DISGUISED PERSONALITY TESTS

Most personality inventories are not tests in the usual sense of the term. They do not try out the individual to determine what he is able to do in a given situation. They are standardized questionnaires which ask the subject how he reacts or feels in various situations. The responses of the individual are useful if he does not know the most desirable answer or if he is entirely sincere and honest in his responses. The validity of the test depends largely upon the truthfulness of the responses. It has been shown that it is possible to influence the scores on such a test significantly by instructing the persons taking it to mark the test in such a way that they will get a desirable score.

Since the validity of personality inventories whose purpose is not disguised depends so largely upon the veracity of the responses, the value of such instruments for certain types of testing is greatly curtailed. The usefulness of this type of test for employment purposes, for example, or for testing candidates for entrance to college is limited. There is a need for personality tests whose purpose is not immediately evident to the subject. Thus far, relatively few such tests have been devised.

The largest group of tests which were thoroughly disguised were those developed in connection with the Character Education Inquiry (*44*, *45*, *46*) some 30 years ago, but because they reproduced life situations, many of those employed in that inquiry were too elaborate for school use. Maller utilized a technique similar to that employed in the Character Education Inquiry in devising a group test of honesty in school work known as the Self-Marking Test. He reported reliability coefficients above .90 for this test (*76*).

An interesting example of a well-disguised personality test which was planned for school use was the Downey Will-Temperament Test. This test, which is now of historical interest only, was devised by June E. Downey (*30*) as a result of her interest in graphology as a means of expressing personality. The test was dependent entirely upon the subject's responses in situations involving handwriting, and the purpose of nearly all the subtests was well hidden from the subject. Unfortunately, however, numerous studies of the reliability and validity of the Downey test yielded discouraging results. Very few of the coefficients of reliability or validity were high enough to satisfy the criteria for a test that is to be used in individual diagnosis. In the hands of persons thoroughly acquainted with its limitations, the test was occasionally a useful laboratory tool, as, for example, in the Newman-Freeman-Holzinger study of identical twins (*84*), but the test was not found to be practicable for general school use.

## ADJUSTMENT QUESTIONNAIRES AND PSYCHONEUROTIC INVENTORIES

Although there are obvious limitations to the questionnaire method, the standardized questionnaire, or self-inventory, has become the most common instrument for the measurement of personality. There are so many tests of this type that only a small proportion of them can be included in the present discussion.

The Woodworth Personal Data Sheet is the oldest and one of the best known of the controlled-answer questionnaires. Woodworth based a series of questions calling for "yes" and "no" answers on symptoms that had been mentioned in studies of psychoneurotics. The questionnaire was adapted by Woodworth and Mathews for use with children. Many of the questions in Woodworth's sheet appear in modified form in more recent questionnaires.

In 1928, G. W. and F. H. Allport published the Allport Ascendance-Submission Scale, or the A-S Reaction Study (*4*). This scale, which contains 35 multiple-choice questions for women and 33 for men, has been used in a variety of studies. A revision of the A-S Reaction Study for business use was prepared by R. O. Beckman.

One of the older and better known controlled-answer questionnaires for adolescents and adults is the Bernreuter Personality Inventory (*14*). The research bibliog-

raphy on this inventory is extensive, although attention to this instrument has declined in recent years. The inventory consists of 125 questions selected from Laird's C2 Test of Introversion-Extroversion, the Allports' A-S Reaction Study, Thurstone's Neurotic Inventory, and an earlier test for self-sufficiency by Bernreuter. The unique contribution made by Bernreuter is that, whereas the tests on which it was based furnished only a single measure of adjustment, Bernreuter scored his test with four different scales, thus making available measures of neurotic tendency, self-sufficiency, introversion-extroversion, and ascendance submission. In 1934 Flanagan (*34*), using Hotelling's factor-analysis method, added two more scales for scoring the Bernreuter inventory. Flanagan called his scales self-confidence and sociability. The reliability of the Bernreuter scales compares favorably with that of many intelligence and achievement tests, but their validity, like the validity of nearly all personality tests, remains in doubt. The use of the Bernreuter seems to have decreased considerably since about 1945.

The Bell Adjustment Inventory (*12*), a test which is in form similar to the Bernreuter, was published in 1934. By means of a much simpler scoring procedure than that used by Bernreuter, Bell secured measures which he called home adjustment, health adjustment, social adjustment, and emotional adjustment. The test is designed for use in high school and college. The few studies of it that have been made suggest that it is one of the better inventories in this field. The adult form of this inventory, published in 1938, has a fifth scale, occupational adjustment.

Bell has also published The School Inventory, which purports to make possible a quick, yet reliable, quantitative statement of the school adjustment of senior high school pupils.

Among the available inventories of personal qualities, two which have been rather widely used are the Washburne Social Adjustment Inventory (*118*) and the Adams-Lepley Personal Audit (*1*). The former yields scores for truthfulness, sympathy, alienation, purpose, impulse judgment, control, happiness, and wishes; the latter inventory includes sociability, suggestibility, tendency to rationalize, tendency to anxiety, tendency to personal intolerance, flexibility or docility of attitudes, susceptibility to annoyance, tendency to excessive sexual emotionality and conflict, and tendency to think or worry about unsolved problems.

The majority of the personality inventories are designed for use among senior high school and college students and adults. Several inventories have been devised, however, for use in the elementary school and junior high school. One of these is Aspects of Personality by Pintner, Loftus, Forlano, and Alster (*86*). This inventory, published in 1938, for Grades 4 to 9 inclusive, is designed to measure ascendance-submission, introversion extroversion, and emotionality. Rogers' Test of Personality Adjustment (*93*) is for a somewhat similar range, including ages 9 to 13. It provides scores for personal inferiority, social inferiority, family relationships, and daydreaming.

There is one battery which is designed to cover all levels from kindergarten to adult. This is the California Test of Personality, prepared by Thorpe, Clark, and Tiegs (*109*). The tests in this series, which were published from 1939 to 1943, provide a profile of scores on component tests grouped under self-adjustment and social adjustment. More recently, these authors issued the Mental Health Analysis, which is a series of three overlapping batteries covering Grade 4 to the adult level. In this set of tests, the number of questions within each category was increased, and the questions were spread throughout the inventory so that a pattern of desirable responses was less readily perceived by the pupil. The categories were classified under two general headings, liabilities and assets.

A number of the self-inventories of personal qualities, particularly those devised by Cattell and by Guilford and their associates represent the application of factor analysis to the study of personality. Among the instruments produced by Cattell and his co-workers at the University of Illinois are the 16-Personality Factor Questionnaire (*20, 21*), the Junior Personality Quiz (*22*), and the IPAT Humor Test of Personality (*23*).

Guilford and his associates have prepared the Nebraska Personality Inventory (*41*), the Guilford-Martin Personality Inventory, the Guilford-Martin Inventory of Factors GAMIN, the Guilford-Martin Inventory of Factors STDCR, and the Guilford-Zimmerman Temperament Survey (*39*). An attempt is made in the last test to bring together in one inventory the factors previously found in the other four inventories. The qualities included in the Guilford-Zimmerman survey are (G) General Activity, (R) Restraint, (A) Ascendence, (S) Sociability, (E) Emotional Stability, (O) Objectivity, (F) Friendliness, (T) Thoughtfulness, (P) Personal Relations, and (M) Masculinity.

Among other noteworthy inventories of personal qualities published since 1945 are the Edwards Personal Preference Schedule (1954); Gordon Personal Profile (1953); Heston Personal Adjustment Inventory (1949); KD Proneness Scale and Checklist (1950–53); Minnesota Multiphasic Personality Inventory, revised edition (1951); Mooney Problem Checklist, 1950 revision (1950); SRA Youth Inventory (1949) by Remmers and Shimberg; SRA Junior Inventory (1951) by Remmers and Bauernfeind; Thurstone Temperament Schedule

(1950); and the Wood Behavior Preference Record (1953). Of these comparatively recent inventories, probably the largest amount of interest has centered around the Minnesota Multiphasic Personality Inventory. Buros' *Third* and *Fourth Mental Measurements Yearbooks* list 283 titles dealing with the MMPI (*17*:103–104; *18*:126–130). The research literature on this inventory is now more extensive than that concerned with any other nonprojective personality test, with the possible exception of the Bernreuter Personality Inventory.

## ATTITUDE TESTS AND SCALES

Chave (*24*) defined attitude as a complex of feelings, desires, fears, convictions, prejudices, or other tendencies that have given a set, or readiness to act, to a person because of varied experiences. In recent years, there have been many attempts to study attitudes, but most of these have not been very successful.

The most extensive and sustained work in attitude measurement was carried on some 25 years ago by Thurstone and his associates at the University of Chicago. This work resulted in an extensive set of scales for the measurement of social attitudes (*107*, *108*). These scales are no longer available, but Thurstone's contributions to the measurement of attitudes deserves some attention. In the first place, Thurstone restricted the field which each instrument was designed to measure. In contrast to some test specialists who take the position that attitude is a broad and general aspect of personality, Thurstone said that attitude is affect for or against a psychological object. In accordance with this definition, his social attitude scales dealt with attitude toward individual social institutions, such as the church, the Constitution, communism, and war. This approach lent definiteness to the measurement of attitudes, but at the same time it required a large number of scales in order to provide comprehensive measurement in this field.

Thurstone's second contribution to the measurement of attitudes was the technique he developed for the construction of attitude scales. This technique was more elaborate than that used in most of the other investigations of attitudes. The first step in the procedure was the collection of statements about a given social institution from many different sources. The second step was the sorting, by a large number of judges, of the statements into several categories with respect to degree of favorableness toward the institution. The third step was the selection of about 20 statements, ranging from extreme favorableness to extreme unfavorableness toward the institution and the assignment of scale values to these statements. This was done by a statistical procedure based on the sorting by the judges. In scoring, the scale value of each statement with which the subject agreed was noted and a score was assigned which corresponded to the median scale value. Available data indicate that most of the Thurstone scales were fairly reliable. However, apparently because of small demand for measurement devices whose purpose is to highly specific, the publication of these scales was discontinued.

Remmers (*90*, *91*) edited a series of Attitude Scales, the purpose of which is somewhat similar to that of the Thurstone scales. Remmers' method of constructing his scales resembles Thurstone's method in that it utilizes the principle that equally-often-observed differences are equal. The main difference in method is that whereas each of Thurstone's scales was designed to measure attitude toward one definite social institution, an attempt is made in Remmers' scales to measure attitude toward a large group or class of objects, such as attitude toward any school subject or attitude toward any vocation. The scales constructed by Remmers and his students may be used throughout the junior and senior high school and college. Although McNemar (*75*) and other authorities have criticized generalized attitude scales, these scales continue to serve a useful function in guidance programs when used in conjunction with other data.

## INTEREST INVENTORIES

Interests, like attitudes, are difficult to measure with precision, but several useful instruments in this area have been devised. The Allport-Vernon Study of Values (*116*), which was published in 1931 and revised in 1951, is among the better-known scales for measuring dominant interests. This scale is aimed at the measurement of six basic types of interests: theoretical, economic, aesthetic, social, political, and religious. This classification is based on a scheme of ideal types proposed by Eduard Spranger, a German psychologist. This test is designed for high school and college students.

Because of their importance in guidance, vocational interests have no doubt been studied more intensively than any other type of interest. The Strong Vocational Interest Blanks (*101*) were for years the most widely used interest questionnaires, and they continue to be among the most extensively employed. The Strong blanks require the subject to indicate if he likes or dislikes various occupations, amusements, school subjects, types of people, and so forth. The men's blank is scored for 41 occupations; six occupational groups; and four other areas, masculinity-femininity, maturity of interest, specialization level, and occupational level. There is also a studiousness scale which was added by Young and Estabrooks (*126*). The women's blank may be scored with

26 occupational scales and a scale for masculinity-femininity.

The Strong blanks were standardized on the basis of the actual interests of persons in the occupations for which the scales were developed. They were designed primarily for use with college students and adults, and they seldom should be used below the junior year in high school. The reliability of the scales averages about .85.

The greatest obstacle to the wider use of the Strong blank is the difficulty of its scoring. Since the blank must be scored separately with a scale for each occupation, hours are required to score by hand a single blank. Both the men's and the women's blanks, however, may be scored by special International Business Machines equipment, and the men's blank is also set up for scoring on the International Test-Scoring Machine, although this is also a long and tedious process. Machine scoring is the only practicable method to use with the Strong blank. At present the fastest and most economical way of scoring the Strong tests is by means of mechanical equipment located at Testscor in Minneapolis.

Much simpler scoring procedures are used in connection with a vocational interest inventory designed for high school and college use by Glen U. Cleeton (25). This instrument has not been the subject of nearly so much research as the Strong blank.

One of the most promising testing procedures applied in the field of interests is the paired-comparison technique, first exemplified in a doctor's dissertation by Weedon (*119*). The basis of this technique consists in preparing "preference" items in which each interest to be investigated is paired with every other interest, all stated in terms of behavior. Individuals are then asked to indicate which one of each pair they prefer to do, and the responses are treated statistically. An adaptation of this technique in which the test items are presented in triads is found in the Kuder Preference Record—Vocational (65), which was first published in 1939 and which has gone through a number of revisions. The most recent edition provides scores in ten broad areas which are reported in the form of a profile. There is also a verification scale for identifying unreliable scores.

The Kuder Preference Record—Personal, published in 1948, is a companion instrument which yields five preference scores and a verification score. The Kuder Preference Records are among the most carefully constructed instruments for the appraisal of interests. At present, the Preference Record—Vocational is probably the most widely used of all the interest measures.

Other comparatively recent interest measures are the Occupational Interest Inventory, by Lee and Thorpe, and the Vocational Interest Analyses, prepared by Roeber and Prideaux. The former inventory purports to measure interests in six fields: personal-social, natural, mechanical, business, the arts, and the sciences. This inventory was criticized by Dulsky in Buros' *Third Mental Measurements Yearbook* (17:667–668) on the basis that the six fields were too large and complex and contained too many diverse occupational activities. Roeber and Prideaux's Vocational Interest Analysis represents an attempt to meet this kind of criticism through providing scores for categories within the broader areas covered by the Occupational Interest Inventory. Research data are not available for an adequate appraisal of the Vocational Interest Analyses or the parent instrument, the Occupational Interest Inventory.

The Baldwin Motivation Indicator is another fairly recent and comparatively simple interest measure. It is intended primarily for high school pupils. More information is needed about the validity of this instrument.

Nearly all available interest measures are intended for use in high schools and colleges and with adults. However, one new interest inventory, What I Like to Do, by Thorpe, Myers, and Bonsall, is designed for children in Grades 4 through 7. This is among the tests annotated later in the chapter.

## VALIDITY AND RELIABILITY

Although there have been many studies of personality tests, the validity of the various tests in this field has not been established. Summaries of research in this field by Ellis (32) and Ellis and Conrad (33) indicated that the validity of personality measures was generally low in civilian use, but somewhat higher in military practice.

It is very difficult to determine the validity of personality tests because there is no satisfactory criterion with which to correlate the test scores. The ratings of judges are a common criterion in studies of validity, but judges' ratings are not highly reliable, even when the characteristic to be rated is well understood by them. When the trait is intangible and difficult to get clearly in mind, still less confidence can be placed on the ratings. The fact that scores on personality tests usually do not correlate highly with judges' ratings is by no means conclusive evidence that the tests fail to measure the traits which they are intended to measure.

The reliability coefficients for most personality tests and inventories are between .70 and .90. Personality tests thus tend to be as reliable as some of the widely used intelligence and achievement tests. Few, if any, however, have consistently shown reliability as high as the most reliable tests of mental ability or achievement. The most

dependable intelligence tests and achievement tests have reliability coefficients as high as .95 to .98. Few reliability coefficients that high have thus far been reported for personality tests.

## USES OF RESULTS OF PERSONALITY TESTS

Most personality and interest measures are reliable enough for group studies, and they may be used for research if they can be shown to be reasonably valid.

The majority of these instruments, however, are not reliable enough to be very satisfactory for use in individual diagnosis. Individual scores on personality tests can contribute materially, nevertheless, to the guidance program of the school. Two important uses of these tests are (1) to stimulate the pupils to evaluate critically their own personality characteristics and (2) to serve as a point of departure in conferences between counselors and individual pupils. Personality tests are also helpful in locating pupils who are poorly adjusted and unhappy, and who need guidance in making emotional and personal adjustment. Tests are sometimes more successful in discovering such cases than are observational or interview procedures, since many maladjusted pupils are so repressed that they give little outward evidence of poor adjustment. If scores on personality tests indicate that there are such cases in the school, a wise counselor will not accept the results unreservedly but will verify them by means of careful observation and well-planned personal interviews with the pupils.

For the purpose of records of growth, anecdotal records, behavior descriptions, and sociometric devices seem preferable to existing personality tests. Some of the rating scales in which the categories are carefully defined and explained in very concrete terms, likewise, provide more valuable records than do most of the personality tests. These types of appraisal will be discussed in the next chapter.

## SELECTED AND ANNOTATED LIST OF PERSONALITY AND INTEREST TESTS

The 42 personality tests and inventories (including measures of interests and of study habits) in this section have been selected from a possible list of more than 400. It is believed that they are among the more useful instruments of their respective types, although there is no intention of recommending them to the exclusion of all other personality tests.

Various ways of classifying tests and inventories for measuring character and personality have been suggested by different authors. The following ninefold classification is used in the present discussion: I, records of uncontrolled observations; II, rating devices; III, behavior descriptions; IV, structured self-inventories; V, tests utilizing life situations; VI, paper-and-pencil tests of broad traits or attitudes; VII, scales for specific traits or attitudes; VIII, free association or projective tests; IX, laboratory techniques.

The first three classes include devices to be discussed in the next chapter. The last one is omitted because such instruments can be used in few schools because of the elaborateness of the equipment required. Classes IV to VIII, inclusive, are represented in this list. The roman numeral in parentheses following each title indicates the classification of the test or inventory.

Adams, Clifford R., and Lepley, William M. *Personal Audit.*[1] Chicago: Science Research Associates, 1941–45. Form SS, $2.65 per package of 20 test booklets; specimen set, 50 cents. Form LL, $3.65 per 20 tests; specimen set, 50 cents (IV).

A personality inventory designed for use with high school and college students and adults. Includes the following areas: (1) seriousness-impulsiveness; (2) firmness-indecision; (3) tranquility-irritability; (4) frankness-evasion; (5) stability-instability; (6) tolerance-intolerance; (7) steadiness-emotionality; (8) persistence-fluctuation; and (9) contentment-worry. Two forms, SS consisting of first six parts and LL consisting of all nine parts. Time for Form SS, about 35 minutes; Form LL, about 45 minutes. Each form yields a profile of scores. There are norms for high school pupils, college students, business and industrial groups, and general adult subjects. The Spearman-Brown reliability of each of the parts is .90 or above based on scores of college students. There is some question about what the various parts measure, and the evidence concerning their validity is not very clear. *Reference:* Adams (1).

[1] It will be observed that the aptitude tests and achievement tests in the two preceding chapters were listed with the name of the test first, followed by the name of the author, while in this list of tests the author's name precedes that of the test. There is a logical reason for this apparent lack of consistency. Many of the aptitude tests and achievement tests are identified with a certain series or battery, e.g., the American Council Psychological Examination, the Cooperative Plane Geometry Test, and so forth. Most of the personality and interest tests, on the other hand, are customarily identified by the name of the author, although the author's name is not a part of the title of some of them—for instance, the Adams-Lepley Personal Audit, the Bernreuter Personality Inventory, and the Strong Vocational Interest Blank. For this reason, it was thought that the tests annotated in the book could be found more readily if the aptitude and achievement tests were listed according to the name of the test and if the personality and interest tests were listed alphabetically by names of the authors.

Allport, Gordon W., and Allport, Floyd H. *The A-S Reaction Study*. Boston: Houghton Mifflin Company, 1928–39. Separate forms for men and women. $2.50 per 25 tests; specimen set, 40 cents (IV).

A self-inventory, the purpose of which is to discover the extent to which a person is disposed to dominate or be dominated by his fellows. A variety of situations is verbally presented and the subject selects for each situation that one of several possible responses which most nearly characterizes his customary behavior. No time limit; 30 minutes usually sufficient. Standardized on college classes but could probably be used in high school. Norms for men and for women are given in the manual. Reliability, .74 to .78. Validity, as indicated by correlation with ratings, .29 to .79. According to authors, the overall validity index would be about .45. This cannot be regarded as a test of a variety of personality qualities, but it is one of the better measures of dominance. Beckman (*11*) prepared a Revision of A-S Reaction Study for Business Use, which is published by The Psychological Corporation: price, $2.00 per 25 tests; specimen set, 35 cents. Time limit, about 15 minutes. Norms for men in business and industry. Schultz and Roslow (*99*) criticized the business revision on the basis of the wide range and rectangular distribution of the scores and described a restandardization that yielded a more nearly normal distribution. *Reference:* Buros (*17*:51–52).

Allport, Gordon W.; Vernon, Philip E.; and Lindzey, Gardner. *Study of Values*, revised. Boston: Houghton Mifflin Company, 1931–51. $2.50 per 25 tests; specimen set, 40 cents (VI).

A scale for measuring the dominant interests of personality according to Spranger's classification of six ideal types: theoretical, economic, aesthetic, social, political, and religious. The 1951 revision is basically similar to the earlier form, but some of the items have been revised and modernized, and the test has a more attractive appearance. Contains two parts arranged in a single booklet. In all, there are 45 items, which call for a total of 120 responses, 20 for each value. The blank is self-administering and may be filled out within a period of 20 minutes. The score sheet provides for showing graphically the scores of an individual on the six values. Norms in terms of means and standard deviations for college students in general, for males and females, and for several adult groups. The population in some of the norm groups is rather small. Data reported by the authors indicate that split-half reliabilities of scales in revised form range from .73 to .90, with a mean reliability coefficient of .82, using a z transformation, whereas the mean reliability for the old form was .70. The repeat reliabilities, with an interval of one month, tend to be somewhat higher. The correlations among the value types tend to be low, which is, of course, desirable. A considerable number of studies of validity have been made by various researchers, but most of these pertain to the unrevised form. The authors are very conservative in their claims for this instrument, but it is one of the better paper-and-pencil measures of personal qualities. *Reference:* Buros (*18*:156–158).

Baker, Harry J. *Detroit Adjustment Inventory*. Bloomington, Ill.: Public School Publishing Company, 1942–53. Alpha form, $3.10 per 25; specimen set, 55 cents; Gamma form, $3.10 per 25; specimen set, 55 cents (IV).

Also known as "Telling What I Do." Alpha form for junior and senior high school, published in 1942; 120 items divided into 24 topics; nontimed, requires about 30 to 40 minutes. Gamma form for Grades 3 to 6, published in 1953; designed to measure four kinds of reaction: habits, social, emotional, and ethical. Both are intended to be self-administering. No reliability data available for either form. The small amount of validity information, indicating degree to which inventory distinguishes between behavior and non-behavior cases, is given in manuals for the two forms. Booklets containing "remedial suggestions" are available for use following administration of each form.

Baldwin, G. Bernard. *Motivation Indicator*. Minneapolis: Educational Test Bureau, 1947. $1.40 per 25 booklets; 30 cents per 25 IBM answer sheets; $1.10 per set of 9 keys for hand scoring (IV).

An interest inventory for high school use. Designed to measure interests in nine curricular areas and five "social motivation" areas. Curricular groups are biological sciences, physical sciences, social sciences, creative writing, graphic arts, industrial arts, agriculture, clerical work (verbal), and clerical work (numbers); social areas are altruistic, promotional, administrative, distributive (sales), and creative (planning). No time limit, 20 to 30 minutes required; 212 responses are entered on separate answer sheets in an arrangement which facilitates the paired-comparison technique. Author reports test-retest reliabilities of curricular areas ranging from .87 to .96, with a median of .94. Those for the social areas range from .64 to .87, with a median of .84. Norms for high school pupils are available. Published validity data are lacking.

Bell, Hugh M. *The Adjustment Inventory*. Stanford University, Calif.: Stanford University Press, 1934. $1.00 per 10 booklets; $1.00 per 50 IBM answer sheets; scoring keys, $1.00 per set; answer sheets with questions printed thereon for use with IBM test-scoring machine, $2.50 per 50 (IV).

Measures home adjustment, health adjustment, social adjustment, and emotional adjustment. Consists of series of questions to which pupil responds by encircling *yes, no,* or *?*. One form intended for use in Grades 9–14. No time limit; can be completed in about 25 minutes. Scoring time, three minutes. Norms for high school boys and girls and college men and women are given separately in the manual. Turney and Fee (*115*) reported a study of the use of the Bell Adjustment Inventory in high school guidance. They found reliability coefficients of .74 to .85 for the descriptive classifications and .82 for the total score. Correlations of scores on

the inventory with average ratings of 15 judges were low, ranging from .18 to .42. Traxler (*111*) obtained somewhat similar reliability and validity data in a study based on scores of high school pupils. Pedersen (*85*) studied validity of inventory on basis of scores and ratings of freshman girls in University of Rochester; found evidence of validity of home adjustment, health adjustment, and social adjustment, but not of emotional adjustment. Resnick (*92*) found that the home adjustment score and total adjustment score discriminated between pairs of high, middle, and low achieving high school pupils at the .01 level. An adult form of this inventory was published in 1938. Prices the same as the student form. It is scored with an occupational adjustment scale in addition to the four scales used with the other inventory. Odd-even coefficients of reliability predicted with the Spearman-Brown formula range from .81 to .94. Bibliography of 119 items given in Buros' *Fourth Mental Measurements Yearbook* (*18*:67–69). *Reference:* Cantoni (*19*).

Bell, Hugh M. *The School Inventory.* Stanford University, Calif.: Stanford University Press, 1936. $1.00 per 10; plastocele scoring scale, 60 cents (IV).

An inventory for use in investigating pupils' attitudes toward their school. Designed for senior high school pupils who have attended the school in which the test is given for at least three months. Contains 76 questions which are to be answered by encircling *yes, no,* or *?*. Pupils who make high scores tend to be poorly adjusted to the school. The test is practically self-administering. No time limit; most students can complete it within 15 minutes. Scoring time, about one minute. There are norms for high school students which yield descriptions ranging from "excellent" to "very unsatisfactory." The author reports a reliability coefficient of .94 ± .004, based on the scores of 242 high school freshmen, sophomores, juniors, and seniors. Traxler (*111*) found a reliability of .917 for this inventory; he also obtained a correlation of .536 ± .083 between scores on the inventory and the pooled opinions of judges. Not a diagnostic instrument; but useful in counseling interviews.

Bernreuter, Robert G. *The Personality Inventory.* Stanford University, Calif.: Stanford University Press, 1931–35. $1.00 per 10 booklets; $1.00 per 50 IBM answer sheets; $2.50 per set of machine-scoring keys; individual report blanks 1 cent each (IV).

Measures neurotic tendency, self-sufficiency, introversion-extroversion, dominance-submission, confidence, and sociability. The last two scales were added by Flanagan. Consists of series of questions to which pupil responds by encircling *yes, no,* or *?*. No time limit; requires about 30 minutes. Scoring is complicated; if many blanks are to be scored, it is economical to have the work done by machine scoring at a test service bureau, such as Testscor in Minneapolis. One form for high school and college students. Percentile norms for high school and college students and for men and women accompany each scale.

Bernreuter (*13*) attempted to validate his four scales by correlation with criterion made up from scores on Thurstone's Neurotic Inventory, the Allports' A-S Reaction Study, and Laird's C2 Introversion-Extroversion Test, and secured coefficients which varied from .84 to approximately 1.00. Research literature concerned with this test is so extensive that it is impossible to summarize even the main findings in this annotation. Buros' *Mental Measurements Yearbooks* include bibliography of 259 items published through December 1951 (*16*:80–81; *18*:135–139). Series of articles by Lorge (*69, 70, 71*), together with Flanagan's (*35*) reply to Lorge's second article, constitute one of best appraisals of the Bernreuter. Research indicates that most of the value of this instrument can be obtained from scoring with Flanagan's two scales, self-confidence and sociability. New studies of this instrument have decreased in number in recent years and use may have declined as well, partly because some users have found validity rather low in actual practice. However, schools planning to use a personality inventory in their guidance programs can well consider this one, for some 20 years of research and experience have revealed its uses and limitations much more thoroughly than is true of most instruments in this field. *Reference* for information about theory on which inventory was constructed: Bernreuter (*14*).

Cattell, R. B.; Beloff, J.; Beloff, H.; and Flint, D. *The IPAT Junior Personality Quiz.* Champaign, Ill.: Institute for Personality and Ability Testing, 1953. $4.00 per 25 booklets; $1.80 per 50 answer sheets; handbook, 80 cents; hand-scoring keys, 70 cents; sample set, $1.60 (IV).

Consists of 144 items identified by factor analysis of some 300 original questions. Yields scores in 12 reportedly independent factors, among which is general intelligence. Designed for use in clinics and in educational and vocational guidance. Age range, 10 to 16 years. Time for administration, 30 to 60 minutes. Separate norms for boys and for girls. Reliabilities as reported in manual for the 12 factors, including experimental factors, are rather low, ranging from .25 to .83. *Reference:* Cattell and Beloff (*22*).

Cattell, R. B.; Saunders, D. R., and Stice, G. F. *The 16 Personality Factor Questionnaire.* Champaign, Ill.: Institute for Personality and Ability Testing, 1950. $4.00 per 25 booklets; $1.80 per 50 IBM answer sheets; $1.50 per 50 profile sheets; handbook, $1.90; stencils for hand-scoring IBM answer sheets, $3.00; specimen set of Forms A and B, $2.25; also Form C (special short form), test booklets, industrial edition, 40 cents each; school edition, 20 cents each; Form C handbook supplement, 80 cents; scoring key, $1.00; specimen set, $3.00 (IV).

Based on factor analysis of a wide variety of items, many of which are similar to those appearing in other self-inventories of personality. Forms A and B each contain 187 items designed to measure a total of 16 factors. Raw scores are converted to standard scores on a ten-point scale and are

expressed in the form of a profile. Form C is a more recent short form consisting of 105 items. This form is in the process of standardization. Designed for senior high school, college, and adult subjects. Working time, approximately 40 minutes for Forms A and B and 20 minutes for Form C. Norms for college students, general adult population, and 25 occupational groups. In a guidance situation, this test should probably be used only by counselors with clinical training. Corrected split-half reliabilities of the 16 factors, based on sample of 200 drawn from the general population, range from .50 to .88, with a median of .705. These reliabilities are probably as high as could be expected for subscores based on small numbers of items, but they tend to be too low for use of this instrument in individual diagnosis. At present stage of development of this questionnaire, it is perhaps more suitable for experimental use than for regular use in counseling. *Reference:* Cattell (20).

Cleeton, Glen U. *Vocational Interest Inventory.* Bloomington, Ill.: McKnight & McKnight Publishing Company, 1937. $2.00 per 25 test booklets, with manual; answer sheets for machine scoring, 40 cents per set; extra manuals, 50 cents; specimen set, 50 cents (IV).

Two forms, one for vocational interests of men and one for vocational interests of women. Designed for use in Grades 9–12 and in college. Can also be used with adults. Each blank contains nine occupational groups and a tenth section on social adjustment. Construction and validation not carried on with the thoroughness of the work on such inventories as the Strong and Kuder. Scoring is very easy in comparison with that of the Strong and most other vocational interest tests. Reliability coefficients reported by the author are relatively high, .822 to .910. Congdon (26) found the inventory valuable in counseling freshmen and seniors in the Colorado State College of Education. *Reference:* Cleeton (25).

Darley, John G., and McNamara, Walter J. *Minnesota Personality Scale.* New York: The Psychological Corporation, 1941. $2.75 per 25 booklets; $2.10 per 50 answer sheets; specimen set, either form, 60 cents (IV).

Designed to measure morale, social adjustment, family relations, emotionality, and economic conservatism. Forms for men and women. Adapted for machine scoring. Same answer sheet used for both forms. Grades 11 and 12 and college. Administration time, about 45 minutes. Based on items drawn from Minnesota Scale for the Survey of Opinions, the Bell Adjustment Inventory, and the two Minnesota Inventories of Social Attitudes. Factor analysis was used in the selection of the items. As reported in the manual of directions, corrected odd-even reliability coefficients for the five scales range from .84 to .97, with only one coefficient below .90. Most of the intercorrelations between the subscores tend to be fairly low. No available correlations with outside criteria as evidence of validity. *Reference:* Darley and McNamara (28).

Edwards, Allen L. *Edwards Personal Preference Schedule.* New York: The Psychological Corporation, 1953–54. $3.00 per 25 booklets; $2.90 per 50 answer sheets; specimen set, 60 cents (IV).

Constructed to measure 15 needs or motives of college students and adults. An attempt is made in the inventory to choose items which minimize tendency to select face-saving or socially desirable responses. One form consisting of 225 paired-comparison statements. Subject is required to choose the statement in each pair which is most characteristic or descriptive of himself. The 15 personality scores yielded by the inventory are (1) achievement, (2) deference, (3) order, (4) exhibition, (5) autonomy, (6) affiliation, (7) intraception, (8) succorance, (9) dominance, (10) abasement, (11) nurturance, (12) change, (13) endurance, (14) heterosexuality, (15) aggression. Raw scores ranging from 0 to 28 on each variable are translated into t-scores and percentiles separately for men and for women. Also yields a consistency score. Working time is about 45 minutes. Corrected split-half reliabilities given in the manual range from .60 to .87, with a median of .78. Likewise, test-retest reliabilities range from .74 to .88, with a median of .79. Reported intercorrelations among the variables are, in general, quite low. Correlations with the Guilford-Zimmerman Personality Inventory and the Taylor Manifest Anxiety Scale are given in the manual. A comparatively promising appearing new inventory. Gives evidence of considerable sophistication in test construction. Yields scores, the definitions of which are so stated that they should not be difficult for counselors and students to understand.

Garretson, Oliver K., and Symonds, Percival M. *Interest Questionnaire for High School Students,* 1942 edition. New York: Bureau of Publications, Teachers College, Columbia University, 1930–42. $1.55 per 35; specimen set, 95 cents; directions and stencils, 60 cents (IV).

A revision of an interest questionnaire first published some 25 years ago. Designed to provide a measure of the inclination of pupils entering high school toward the academic, commercial, and technical curricula. Allows for an expression of attitudes toward 234 items distributed through occupations, activities, school subjects, positions, etc. Uses like-indifferent-dislike type of response. Standardized on boys in high schools of New York City. The questionnaire is scored for each pupil with three different keys to secure a measure of academic interest, commercial interest, and technical interest. Split-half reliabilities: academic preference, 861; commercial preference, .925; technical preference, .953. Validity of questionnaire was studied by computation of biserial *r* between the scores in one curriculum and the scores in the other curricula. The authors concluded that "by means of the questionnaire one can predict with greater exactness the curriculum a boy will choose than it is possible to predict his success in the curriculum of his choice by means of an intelligence test." *Reference:* Garretson (38).

Gordon, Leonard V., *Gordon Personal Profile*. Yonkers, N.Y.: World Book Company, 1951–53. $2.60 per 35 booklets; specimen set, 20 cents (IV).

A recently published self-inventory constructed to measure ascendancy, responsibility, emotional stability, and sociability, as well as a total score. Short and simple in design. Easily and quickly administered. No time limit, but probably requires about 15 minutes. One form. Suitable for high school pupils, college students, and adults. Consists of only 18 forced-choice items calling for a total of 36 responses. Percentile norms for each score, separately for high school and college students and by sex. Some data for selected occupations. Corrected split-half reliability coefficients reported in manual for scores on four qualities and total range from .77 to .95; Kuder-Richardson, .74 to .93; test-retest, .84 to .87 (without total). Manual reports considerable evidence of validity in terms of correlations with independent criteria and internal consistency of the component items. This simple, carefully constructed, rather new inventory, which yields scores that are not highly technical, will appeal to many school and college counselors, as compared with other recently published inventories of interest which are oriented toward clinical and therapeutic uses. Looks definitely promising, although research other than that of the author himself not presently available.

Guilford, J. P., and Zimmerman, Wayne S. *The Guilford-Zimmerman Temperament Survey*. Beverley Hills, Calif.: Sheridan Supply Company, 1949. $3.75 per 25 booklets; 75 cents per 25 IBM answer sheets; $2.00 per set of machine-scoring stencils, $2.00 per set of hand-scoring stencils; manual, 25 cents; profile charts, 50 cents per 25; specimen set, 60 cents (IV).

This inventory is derived from several earlier inventories prepared by Guilford and his associates, including the Nebraska Personality Inventory, the Guilford-Martin Inventory of Factors GAMIN, the Guilford-Martin Inventory I (O Ag Co), and the Inventory of Factors STDCR. Three hundred items, 30 for each of ten traits: (G) general activity, (R) restraint, (A) ascendance, (S) sociability, (E) emotional stability, (O) objectivity, (F) friendliness, (T) thoughtfulness, (P) personal relations, and (M) masculinity. Based on factor analysis studies of personality. One form intended for Grades 9–16 and adults. Nontimed; probable working time, about 50 minutes. Comparatively easy to administer and score, and the obtained scores have psychological meaning. The reliability of the scores is in the neighborhood of .80, and the intercorrelations are low, as reported by the authors. May well be considered for use by counselors in schools and colleges. *References:* Eisele and Cattell (31), Gilbert (39).

Hathaway, Starke R., and McKinley, J. Charnley. *Minnesota Multiphasic Personality Inventory*, revised edition. New York: The Psychological Corporation, 1942–51. Individual form (the "card set"), $23.50 per set of testing materials including 50 recording sheets; $2.90 per 50 recording sheets. Group form (the "booklet form"), $5.50 per 25 booklets; $1.50 per manual; $3.50 per 50 IBM answer sheets and case summary cards; $4.50 per set of machine-scoring stencils with manual; $4.50 per set of hand-scoring stencils with manual (IV).

This inventory takes its origin from studies of personality deviates in mental hospitals. Was first devised as an individual test administered through the use of cards, and was later published in a booklet for group use. Both individual and group forms are available. Separate answer sheets must be used with group form. Consists of 550 statements to which subject responds by indicating "true," "false," or "doubtful (?)," as applied to himself. One form, nontimed; administration time about 40 to 90 minutes. Yields scores for ten personality trends or structures based on scales derived from performance of patients in different psychiatric groupings (hypochondriasis, depression, hysteria, psychopathic deviate, masculinity-femininity, paranoia, psychasthenia, schizophrenia, hypomania, and social introversion) and four scores pertaining to validity of responses: "lie" scale, a scale derived from number of items placed in the "?" category, an "F" scale on which a high score suggests that the individual may not have understood what he read, and a "K" scale designed to indicate "defensiveness-frankness" in test taking. The K-score is used as a suppressor variable to sharpen the discrimination of the test.

A shortened version consisting of the first 366 items may be used if it is necessary to save time in administration, but the "K-scale" and the social introversion scale do not apply to this version.

At present, the Minnesota Multiphasic is probably held in higher regard by psychologists in general than any other structured inventory of personality. In recent years, this instrument has no doubt been the subject of more research interest and effort for the assessment of personality than any other instrument except the Rorschach and the TAT. Buros' *Third* and *Fourth Mental Measurements Yearbooks* list a total of 283 titles pertaining to the Multiphasic through the year 1951 (*17*:103–104, *18*:126–130). An "Atlas" by Hathaway and Meehl is an authoritative clinical guide for the inventory (49). It contains 968 short case histories accompanied by test profiles which were independent of the case summaries. Test-retest reliability coefficients, as given in the manual, range from .46 to .93, with a median of .76. These do not compare favorably with reliabilities reported for some of the other personality measures. In general, the MMPI is primarily an instrument for clinical use by professional psychologists and psychiatrists. It may be used by counselors who majored in psychology, but it is not an instrument for use by teacher-counselors whose preparation is based largely on in-service training. *References:* Hathaway and McKinley (47), (48); McKinley and Hathaway (73), (74); Meehl and Hathaway (49, 78).

Heston, Joseph C. *Heston Personal Adjustment Inventory*. Yonkers, N.Y.: World Book Company, 1949.

$3.95 per 35 booklets; $1.75 per 35 machine-scored answer sheets; manual for interpreting, 45 cents; set of two machine keys, 40 cents; specimen set, 50 cents (IV).

An inventory of the questionnaire type designed to measure six aspects of personal adjustment: analytical thinking, sociability, emotional stability, confidence, personal relations, and home satisfaction. One form suitable for use in Grades 9–12 and at the college and adult levels. Untimed; usually about 45 minutes or less of working time. Percentile norms for high school seniors and college freshmen. Profile may be graphed on back of answer sheet. Corrected split-half reliability coefficients range from .80 to .91 according to the manual. Intercorrelations among emotional stability, confidence, and personal relations are fairly high; other intercorrelations among the six scores are fairly low, although most of them indicate that the traits measured are not entirely independent of one another. The inventory scores tend to be correlated to a reasonable degree with ratings of acquaintances and with self-ratings. Coefficients range from .24 to .59 in the former instance and from .31 to .62 in the latter. This instrument seems to be one of the better personality inventories for general use in counseling high school and college students. *Reference:* Michaelis and Tyler (79).

Kent, Grace H., and Rosanoff, A. J. *Kent-Rosanoff Free Association Tests.* Chicago: C. H. Stoelting Company, 1910. $4.50 per set, including 50 test blanks and manual (VIII).

Consists of 100 stimulus words. Examiner pronounces each word aloud to the subject, who responds with the first word that he associates with the stimulus word. Authors have reported frequency of response to each word for 1000 individuals. Number of atypical responses is taken as a measure of psychopathic tendencies. Manual for the test is contained in Rosanoff's *Manual of Psychiatry.* No significant correlation with neurotic scale of Bernreuter according to a study by Laslett and Bennett (67). Data on reliability not available. *Reference:* Kent and Rosanoff (61).

Kvaraceus, William C. *KD Proneness Scale and Check List.* Yonkers, N.Y.: World Book Company, 1950–53. Scale and Check list, $3.45 per 35; specimen set, 35 cents (II and IV).

Unlike most of the newer personality inventories which are designed to yield several scores purporting to have diagnostic value, this instrument provides simply a total score which is intended to aid in the identification of boys and girls who are susceptible to the development of delinquent patterns of behavior. Consists of two separate pieces of paper, the Proneness Scale and the Proneness Check List. The 74 items in the Proneness Scale are derived from areas in which significant differences between delinquents and nondelinquents have been indicated by the research literature. Among these are family relationships, home conditions, truancy record, school retardation, immaturity, club membership, family mobility, and the like. The check list consists of 58 items distributed among personal factors, environmental factors—home and family, and school factors, which the counselor, social worker, or other person checks as "yes," "no," or "?" with regard to the individual being rated. The scale is designed for Grades 7 through 12; the check list may be used at any age level. Working time for scale, about 25 minutes. Reliabilities of .75 and .81 reported in manual for two small groups. Data reported in the manual which indicate that the Proneness Scale distinguishes between delinquent, nondelinquent, and "high morale" groups with all differences significant at the 1 percent level. Data suggest that the instrument is about equally suitable for use with boys and girls. The check list appears to have face validity, although statistical information on validity seems not to be available. The scale and check list are potentially useful screening devices. They should be helpful to teachers and counselors in identifying adolescents who may need to be referred to a psychologist or psychiatrist.

Kuder, G. Frederic, *Kuder Preference Record—Vocational.* Chicago: Science Research Associates, 1939–51. Form C (11 scale): hand-scoring record booklets, Form CH, 49 cents each; extra answer pads, $2.05 per 20; specimen set, 75 cents; machine-scoring booklets, Form CM, 49 cents each; answer sheets, $3.85 per 100; scoring keys, $7.50 per set of 22; specimen set, 75 cents; profile sheets for boys and girls, 50 cents per 20; profile sheets for men and women, 50 cents per 20. Same prices for nine-scale Form B, including hand-scoring Form BB, and machine-scoring Form BM (IV).

This preference record is one of the two most carefully and scientifically constructed interest inventories and is probably the most widely used instrument in the field of interests at the present time. Since its publication in 1939, it has gone through two revisions. The first revision resulted in an instrument for the measurement of interests in nine broad areas: mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical. Form BB for hand scoring and Form BM for machine scoring. In the most recent edition, a scale for outdoor activities was added to the other nine, and a verification score was included in order to help in identifying individuals who fail to follow directions or give careless responses. Form CH for hand scoring and Form CM for machine scoring.

The Kuder Preference Record contains 168 items, each listing three activities. Subject indicates which activity he likes most and which he likes least. Inventory yields a profile of preference scores in the nine or ten areas for which it is scored. Designed for high school and college students and adults. Administered without time limits; approximate time, 40 minutes. All tests administered with separate answer pads for hand scoring or separate answer sheets for machine scoring or hand scoring. Numerous reliability data summarized in manual, derived from repeating the inventory or from Kuder-Richardson formula, fall within the range .80 to .98, indicating comparatively high reliability. Most reported

intercorrelations among the scales are fairly low. Correlations of the Kuder record with the Strong blank and various other measures have been reported by Triggs and others (*113, 114, 122*). Manuals report mean profiles for men and for women in variety of occupations. These data useful in counseling. Studies reporting Kuder profiles for different occupations also reported elsewhere in the literature, as, for example, one for public accountants (*59*). Buros' *Mental Measurements Yearbooks* contain bibliography of 208 items through 1951 (*16*:447; *17*:659–660; *18*:734–737).

Kuder, G. Frederic. *Kuder Preference Record—Personal.* Chicago: Science Research Associates, 1948–53. Form AH (hand-scoring edition), 49 cents per test and answer pad; $2.05 per 20 answer pads; Form AM (machine-scoring edition), 49 cents per test; $3.85 per 100 IBM answer sheets; $4.00 per set of nine scoring keys; profile sheets, 50 cents per package of 20 (specify whether for boys and girls or for men and women); specimen set, either form, 75 cents each (IV).

Designed to measure preferences for five general kinds of personal and social activities: (1) working with ideas, (2) being active in groups, (3) avoiding conflicts, (4) directing others, and (5) being in familiar and stable situations. Yields scores in these areas which may be graphed in the form of a profile. Also has a V-score or verification score. Type of item and format similar to that of Preference Record—Vocational. Intended for high school and college students and adults. No time limit; administration time about 40 to 45 minutes. Reliabilities (Kuder-Richardson) reported in manual range from .76 to .89. These are a little lower than reliabilities of the Preference Record—Vocational. Most of the reported intercorrelations of the scores on the five scales are rather low. Norms based on 3650 high school boys, 3924 high school girls, 1000 men, and 532 women. Data in manual indicate that certain scales distinguish between satisfied and dissatisfied workers in certain occupations. As yet, few articles reporting research with this new instrument have been published.

Lee, Edwin A., and Thorpe, Louis P. *Occupational Interest Inventory.* Los Angeles: California Test Bureau, 1943–56. Test booklets, 14 cents per copy; IBM answer sheets, 4 cents each; scoring stencils, machine scoring, 60 cents, hand scoring, 60 cents; manual, 25 cents; specimen set, 50 cents (IV).

This inventory purports to measure basic occupational interests. It includes six fields of interests: personal-social, natural, mechanical, business, the arts and the sciences; three types of interests, verbal, manipulative, and computational; and level of interests. One form at each of two levels: Intermediate for junior high school and average adult and Advanced for senior high school, college, and adult. No time limit; approximate administration time, 30 to 40 minutes. Responses may be entered either in booklet or on separate answer sheets. Based on vocational classifications and job analyses in *Dictionary of Occupational Titles.* Arranged for easy use. Construction of inventory apparently carried on by means of armchair or reasoned approach rather than through more laborious and careful research and statistical analysis. Nevertheless, several of the scores are substantially correlated with certain Kuder scales according to two studies (*58, 68*). Percentile norms for males, for females, and for composite population. Test-retest reliabilities of the ten scales for 180 ninth-grade pupils with an interval of four weeks between administrations range from .82 to .95 according to data in manual of directions. Little objective evidence of validity thus far reported by authors.

Mooney, Ross L., and Gordon, Leonard V. *Mooney Problem Check Lists,* 1950 revision. New York: The Psychological Corporation, 1941–50. Regular edition, $1.75 per 25 copies; specimen set, 35 cents (specify form desired); separate answer sheet edition, reusable booklets, $2.40 per 25; answer sheets, $1.90 per 50 (IV).

A revision of earlier editions of the Mooney Problem Check Lists which were published by the Bureau of Educational Research of the Ohio State University. Planned to help individuals identify their personal problems. Intended primarily as an interview aid and counseling device rather than a test. Usual statistical criteria of reliability and validity do not apply. A form for each of four levels: J for junior high school pupils, H for high school pupils, C for college students, and A for adults. Form J consists of 210 items, 30 in each of seven areas: health, physical development; school; home and family; money, work and the future; boy and girl relations; relations with people in general; and self-centered concerns. Forms H and C each contain 330 items, 30 in each of 11 areas. Form A has 288 items distributed among nine areas. Administration is simple. Individual goes through blank and underlines problems troubling him. No time limit; usual time about 30 minutes. A valuable counseling device when used in connection with interviews. Evidence of sensitivity of college form of check list reflecting problem changes as indicated by an independent measure was reported by Gordon (*40*).

Murray, Henry A. *Thematic Apperception Test.* Cambridge, Mass.: Harvard University Press, 1943. Package of pictures with manual, $6.30; Thompson Modification for use with Negroes, $6.30 (VIII).

This is a free-association or projective technique designed mainly for use in clinical situations. The test materials consist of 31 picture cards devised and arranged that they provide two series of ten cards each for boys, girls, men, and women. Suitable for ages 7 and over. One form. The TAT is administered individually. The subject is asked to tell a story about each picture. Presumably he identifies himself with the characters in the story and thus reveals his inner emotions, motivations, complexes, and personality conflicts. Administration and interpretation tend to be a rather slow and tedious process, but the instrument has been sufficiently intriguing and promising to motivate a large amount of

discussion and research on the part of psychologists. Buros' *Third* and *Fourth Mental Measurements Yearbooks* list a total of 299 titles through 1951 (*17*:202–204; *18*:263–267). Reliability data seem not to be available. Aron (7) and Shorr (98) have proposed scoring systems more objective than the original ones.

A modification of the TAT, for Negroes, was provided by Thompson (*106*). Manuals for the administration and interpretation of the TAT were prepared by Stein (*100*), Tomkins (*110*), and others. A standardized form, prepared by Leopold Bellak for recording and analyzing the stories obtained by means of the TAT, is published by The Psychological Corporation. (Bellak TAT Blank, $1.20 per ten; analysis sheet, $1.60 per 100; manual, 35 cents.) *Reference* for information concerning basis of construction: Murray (83).

Pintner, Rudolf; Loftus, John J.; Forlano, George; and Alster, Benjamin. *Aspects of Personality*. Yonkers, N.Y.: World Book Company, 1938. $2.70 per 35; specimen set, 35 cents (IV).

A psychoneurotic inventory for Grades 4–9. Consists of three sections, containing a total of 114 statements such as "I have a lot of nerve"; "I like to read before the class"; "I feel tired most of the time"; etc. Pupil is instructed to indicate after each statement whether he feels the "same" or "different." The sections purport to measure ascendance-submission, introversion-extroversion, and emotionality. One form; working time, 50 minutes. Separate percentile norms for boys and for girls in Grades 4, 5, and 6 and Grades 7, 8, and 9. Average split-half reliabilities: ascendance-submission, .731; introversion-extroversion, .613; emotionality, .855. Average retest reliabilities for four administrations of the test to 100 pupils in Grade 5: ascendance-submission, .71; introversion-extroversion, .70; emotionality, .72. Pintner and Forlano (86) validated the test on the basis of the outstanding characteristics of the pupils as reported by their teachers, and concluded that the technique afforded a rough measure of the validity of the test. In another study, Pintner and Forlano (87) investigated the stability of scores and particular item responses on the inventory. Intercorrelations between scores on four separate administrations of the test at intervals of two weeks varied from .61 to .83. This inventory may serve somewhat the same purpose in the elementary school that the Bernreuter, Bell, Gordon, Heston, and other personality inventories serve at more advanced levels.

Remmers, H. H. *Generalized Attitude Scales*. Lafayette, Ind.: Division of Educational Reference, Purdue University, 1934–38. Two cents per scale; 15 cents per specimen set of any one scale (VII).

A series of separate, brief scales for measuring attitude toward the following: any homemaking project, any institution, any national or racial group, any practice, any school subject, any teacher, any vocation, any play, any proposed social action, any selection of poetry, any disciplinary procedure; also a high school attitude scale, a scale for measuring attitude toward teaching, and a scale for measuring individual and group "morale." The technique of construction resembles that employed by Thurstone, but the scales are designed to serve broader purposes than the Thurstone scales. Grades 7–16. Forms A and B. Administration time, about five minutes per scale. The average reliabilities of scale for measuring attitude toward high school, one form, .74; two forms combined, .85. Forty-six references through 1951 are listed in Buros' *Mental Measurements Yearbooks* (*16*:57; *18*:89–90).

Remmers, H. H.; Drucker, A. J.; and Shimberg, Benjamin. *SRA Youth Inventory*. Chicago: Science Research Associates, 1949–53. For hand scoring, test booklets with answer pads, 49 cents each; extra answer pads, $1.75 per 20; specimen set, 75 cents. For machine scoring, test booklets, 49 cents each; answer sheets, $2.90 per 100; scoring stencil, set of five, $2.50; specimen set, 75 cents. For either hand or machine scoring, profile leaflets, $1.05 per 20; extra manuals, 25 cents (IV).

Designed to help identify the problems that young people worry about. Prepared under sponsorship of Purdue University Opinion Panel for Young People. Contains 298 items, pertinent to eight areas: my school, looking ahead, about myself, getting along with others, my home and family, boy meets girl, health, and things in general. Yields scores for these areas and also a "basic-difficulty" score which is intended to indicate the possible presence of underlying personality disturbance. One form suitable for use with either boys or girls in Grades 7–12. Separate profiles are used with junior and senior high school pupils. No time limit; administration time, approximately 40 minutes. Percentile norms for rural girls, rural boys, urban girls, and urban boys in Grades 9 through 12; also percentile norms for seventh-grade girls, seventh-grade boys, eighth-grade girls, and eighth-grade boys. Test-retest reliabilities reported by Jacobs (57) for 48 independent school girls range from .720 to .859, with a median of .820. He found a considerable degree of relationship among the different areas; concluded that, with cautious interpretation of the results, this kind of instrument should serve a useful function in the high school guidance program.

Remmers, H. H., and Bauernfeind, Robert H. *SRA Junior Inventory*. Chicago: Science Research Associates, 1951–55. Form A: booklets with answer pads, 49 cents each; extra answer pads, $1.95 per 20; specimen set, 75 cents; profile sheets, $1.05 per 20; extra manuals, 25 cents each. Form S: booklets, $1.85 per 20; extra manuals, 25 cents; specimen set, 35 cents (IV).

Similar to the Youth Inventory but planned for elementary school children in Grades 4 through 8. Form A includes five areas: my health, getting along with other people, about myself, about me and my school, and about me and my home. Form S includes these five areas plus a sixth, things in general. Administration time, about 40 minutes. Results may be graphed in the form of a profile. According to the

manual, Spearman-Brown reliability coefficients of Form A range from .806 to .905. Fairly high intercorrelations among the areas, although lower than the reliability coefficients. One of the few inventories of personal qualities designed especially for elementary school pupils.

Roeber, Edward C., and Prideaux, Gerald G. in collaboration with Edwin A. Lee and Louis P. Thorpe *Vocational Interest Analyses.* Los Angeles: California Test Bureau, 1951. 10 cents per copy for each of the six analyses or 54 cents for a complete set; IBM answer sheets, 6 cents each (two answer sheets required for any one examinee on all six analyses); scoring stencils, machine scoring, 60 cents; hand scoring, 60 cents; specimen set, 75 cents (IV).

Based on the *Occupational Interest Inventory* by Lee and Thorpe. Designed to increase the usefulness of the older inventory through providing vocational interest analyses in six fields: personal-social, natural, mechanical, business, the arts, and the sciences. Consists of six separate booklets, one for each area. Each booklet contains 120 paired-comparison items. One form, Grade 9–adult. The Vocational Interest Analyses can be administered within one class period of 45 minutes. Procedure is first to give Occupational Interest Inventory to locate field or fields of major interest and then to administer the appropriate Vocational Interest Analyses, which, in turn, provide a breakdown within the field. For instance, the sciences analysis includes scores for laboratory work, mineral-petroleum products, applied chemistry, chemical research, biological research, and scientific engineering. This procedure seems sound, although there is at least reasonable doubt as to whether the instruments themselves adequately do the job for which they are designed. Analyses are coded with the *Dictionary of Occupational Titles,* but statistical data on their validity are lacking. Test-retest reliabilities reported in manual range from .82 to .94 for a group of 100 twelfth-grade students. These seem satisfactorily high so far as reliability is concerned, but the question of validity remains unanswered, much as it does for most other interest and personality measures.

Rorschach, Hermann. *Rorschach.* New York: The Psychological Corporation; also distributed by C. H. Stoelting Company, Chicago. Many variants of the Rorschach are available from various publishers. The following materials may be purchased from The Psychological Corporation: *Rorschach Psychodiagnostic Plates;* set of ten ink blots, $10.40; individual record blanks (Klopfer and Davidson), package of 35, $2.70; location charts (facsimiles of the ten figures in black and white), $3.15 per 100; Rorschach Slides (Harrower Group Method), the ten inkblots reproduced on Kodaslides, $11.00 per set; Group Rorschach Blank (Harrower), for use with the Rorschach slides with check list for use with Munroe "Inspection Technique" printed on back cover, $3.75 per 25; Rorschach Multiple Choice Blank (Harrower), for use with either cards or slides, $2.50 per 25; specimen set of Harrower blanks, 35 cents. Also, *Rorschach Method of Personality Diagnosis,* by Bruno Klopfer and Helen H. Davidson (an individual record blank developed by The Rorschach Institute), is available from the World Book Company, Yonkers, N.Y., at $2.75 per 35 (VIII).

A series of ten ink blots selected by Rorschach from a much larger number of ink blots for their value in diagnosing emotional disorders, and first published in 1921. The test is administered individually. The subject is directed to look at each blot and state what it seems to be or what it suggests to him. Free range of responses permitted. Standards have been developed for evaluating responses. Results are reputed to provide information about emotional stability, originality of thinking, adaptability, and other traits, all of which are studied in terms of the whole personality. In a period of 35 years, this device has been developed from an interesting novelty into a veritable institution which is probably the most erudite instrument of appraisal employed by the modern psychologist. Literature relating to this technique is more extensive than that for any other measurement device. Buros' *Mental Measurements Yearbooks* list a total of 1219 titles through 1951 (*16*:88–90; *17*:124–132; *18*:202–213). Despite the numerous studies, statistical data on reliability and validity are inconclusive, although numerous psychologists regard the Rorschach as the most sensitive and useful instrument for the assessment of personality. The Behn-Rorschach Test, a parallel set of ink blots was prepared by Hans Zulliger and issued by Grune and Stratton, Inc., in 1942. The Psychodiagnostic ink blots, a parallel set of ink blots on slides was prepared by M. R. Harrower and M. E. Steiner and is distributed by The Psychological Corporation. Original scoring was highly subjective and much effort has been directed toward objectifying and standardizing the scoring. It is claimed for the Rorschach that it will show the general intellectual level of the subject, while at the same time exploring his emotional traits, but separate measurement of intelligence is advisable. There are numerous books and monographs on the Rorschach technique, among which are those by Klopfer and Kelley (*62*); B. Klopfer, Ainsworth, W. G. Klopfer, and Holt (*63*); Beck (*8, 9, 10*); Munroe (*82*); Ames and others (*5, 6*); Halpern (*42*); and Harrower and Steiner (*43*). Rorschach's original book, *Psychodiagnostics,* was translated into English and published in 1949 (*95*).

Strong, Edward K., Jr. *Vocational Interest Blanks,* revised. Stanford University, Calif.: Stanford University Press, 1927–51. Blanks, $2.40 per 25 copies; single scoring scales, $1.00 each; IBM answer sheets, 75 cents per 25; individual report blanks, 2 cents each. Form MM, for use with machine-scoring answer sheets are the same in price as Form M for hand scoring. Prices for Form W (women) are same as prices for Form M for men. Prices for Hankes' answer sheets available from Testscor, Minneapolis, Minn. (IV).

For many years the leading vocational interest inventories, a position they now share with the Kuder records. The purpose of the Strong blanks is not to test interest *in* vocations but to discover the extent to which a person's interests agree with those of persons in various occupational groups. Designed mainly for adults and college students, and probably should not be used below the junior or senior year of high school. Separate blanks for men and women. The men's blank is scored for 41 occupations, and the women's blank for 26. The blank is scored separately for each occupation. The men's blank is also scored for six occupational groups. In addition, four special scales: occupational level, masculinity-femninity, specialization level, and interest-maturity, are available for use with the men's blank. A masculinity-femininity scale is also available for the women's blank. Scoring is laborious if done by hand. If separate answer sheets are used, the men's blank may be scored on the International Test-Scoring Machine, although this procedure is so long and tedious that it is seldom used. The women's blank has not been adapted for the IBM test-scoring machine. Rapid scoring service on the Strong blanks is available from Testscor in Minneapolis.

Results of the Strong blanks are reported on men's or women's profile sheets and interpreted in terms of letter ratings: A, B+, B, B−, C+, and C. Special profile form for public accountants issued by American Institute of Accountants (*123*). Research on Strong blanks too extensive to be summarized. Over 300 titles concerned with these blanks have been published (*16*:458–459; *17*:670–672, 673–674; *18*:748–749). Average reliability of scales, .80 to .85. *Reference:* Strong (*101, 102, 103, 104, 105*).

Thorpe, Louis P.; Clark, Willis W.; and Tiegs, Ernest W. *California Test of Personality.* Los Angeles: California Test Bureau, 1939–53. 8 cents per copy of any series; IBM answer sheets for any level except primary, 4 cents each; machine-scoring stencils, 60 cents per set; hand-scoring keys, 20 cents per set; specimen set of any one level, 50 cents (IV).

An extensive battery consisting of five levels: primary series, Kindergarten and Grades 1–3; elementary series, Grades 4–8; intermediate series, Grades 7–10; secondary series, Grades 9–14; adult series, Grade 7–adults. Planned to measure personal adjustment and social adjustment at all levels. Within each main part there are several subtests, the results of which may be graphed in the form of a profile. The test authors report the Kuder-Richardson reliabilities of the five series range from .83 to .93 for personal adjustment, from .80 to .94 for social adjustment, and from .88 to .96 for total score. Reliabilities of the subtests within the two main divisions are presumed to be rather low because of the small number of items in each subtest. *Reference:* Tiegs, Clark, and Thorpe (*109*).

Thorpe, Louis P., and Clark, Willis W., with Ernest W. Tiegs, consultant. *Mental Health Analysis.* Los Angeles: California Test Bureau, 1946. Test booklets, 8 cents per copy; IBM answer sheets, 3 cents each; scoring stencils, for machine scoring, 60 cents per set; for hand scoring, 40 cents; specimen set, any one level, 50 cents (IV).

Constructed for use in assessing the liabilities and assets of an individual or group in the field of mental health. Four levels: elementary, Grades 4–8; intermediate, Grades 7–10; secondary, Grades 9–12 and college; and adults. One form; administration time, about 45 to 50 minutes. Contains 200 questions to which individual responds with "yes" or "no." There is no intermediate or doubtful choice. One hundred items are related to liabilities, with 20 items devoted to each of the following areas: behavioral immaturity, emotional instability, feelings of inadequacy, physical defects, and nervous manifestations. One hundred items have to do with assets, with 20 items in each of the following areas: close personal relationships, interpersonal skills, social participation, satisfying work and recreation, and adequate outlook and goals. There are percentile norms for each of the areas and for the two main divisions of the inventory. Percentiles may be shown in graphic form. Kuder-Richardson reliabilities reported in manual range as follows: liabilities, .92 to .93; assets, .89 to .93; total score, .93 to .96. Reliabilities of subtests are not given, but in view of small number of items these are probably somewhat low. This instrument apparently constructed on a common-sense basis without much in the way of research. Scores on the various liability and asset categories may provide useful counseling information, although statistical evidence on this point is lacking.

Thorpe, Louis P.; Myers, Charles E.; and Bonsall, Marcella Ryser. *What I Like to Do.* Chicago: Science Research Associates, 1956. Booklets, $2.95 per 20; IBM answer sheets, $3.85 per 100; machine-scoring stencils, set of 3, $1.50; profile folders, 90 cents per 20; specimen set, 50 cents (IV).

A new interest inventory for Grades 4 through 7. Planned to measure the child's interests in eight areas: art, music, social studies, active play, quiet play, manual arts, home arts, and science. Administration time is about one hour. National norms by grade and sex.

Thurstone, L. L. *Thurstone Temperament Schedule.* Chicago: Science Research Associates, 1949–53. Hand-scoring test booklets with answer pads, 49 cents each; extra answer pads, $1.95 per 20; machine-scoring booklets, 49 cents each; answer sheets, $3.85 per 100; scoring stencils, $2.50 each; specimen set, 75 cents (IV).

Designed to describe the important and stable personality traits of normal, well-adjusted individuals. Contains 140 questions to which the subject responds by marking "yes," "?," or "no." Yields scores in seven areas of personality: active, vigorous, impulsive, dominant, stable, sociable, and reflective. These areas were derived from factorial analysis. Suitable for senior high school pupils, college students, and adults. No time limit; administration time about 15 minutes. May

be given with or without supervision. Percentile norms for high school boys and girls and for men and women are available. Percentiles may be shown graphically on a profile form. Emphasis on normal characteristics will appeal to counselors in their daily work. Easily scored and interpreted. Spearman-Brown split-half reliabilities reported in manual range from .45 to .86, with a median of .65. Test-retest reliabilities range from .61 to .82, with a median of .78. These reliabilities are rather low, although probably not lower than would be expected in view of the number of questions in each area. Most of the intercorrelations between the area scores are quite low. A study by Ryans (97) indicates that this schedule may be of some use in discriminating between successful and unsuccessful teachers. A few other validity studies have been reported. *Reference:* Thurstone (107).

Washburne, J. N. *Washburne Social-Adjustment Inventory* (Thaspic edition). Yonkers, N.Y.: World Book Company, 1940. $3.40 per 35; manual for interpreting, 30 cents; machine-scored answer sheets, $1.75 per 35; set of 12 machine keys, $2.40; specimen set, 35 cents (IV).

A group test of social adjustment, consisting of 123 items, some of which call for more than one response. Most of the questions are to be answered by writing *yes* or *no* on a line preceding each question. The scoring key indicates the questions that attempt to get at the same trait or complex, thus providing for a grouping of the questions according to "elements." The aspects of personality for which scores are obtained by means of this inventory are truthfulness, sympathy, alienation, purpose, impulse-judgment, control, happiness, and wishes. One form suitable for all ages above Grade 8. Calls for 30–50 minutes of working time. Reliability coefficients reported in manual are as follows: truthfulness, .73; alienation, .81; happiness, .85; wish, .88; total adjustment score, .92. Reliabilities are not available for the other elements. It is reported that the correlation with intelligence and chronological age is negligible and that the correlations between test elements are also slight. In a study in which the scores of college women on the individual form of the Minnesota Multiphasic Personality Inventory were compared with scores on the Washburne Social Adjustment Inventory, Lough and Green (72) concluded that "the Washburne group test might well serve for a preliminary study of college women students and would aid in identifying those who had personality difficulties." *Reference* concerning origin of the inventory: Washburne (118).

Wood, Hugh B. *Behavior Preference Record.* Los Angeles: California Test Bureau, 1953. Booklets, 8 cents each; IBM answer sheets, 4 cents each; scoring stencils, 60 cents per set; manuals, 25 cents each; specimen set, 50 cents (VI).

Designed to measure knowledge of and preference for different kinds of social behavior in situations the individual is likely to meet in school, home, and community. This new inventory is at three levels: elementary, Grades 4–6; intermediate, Grades 7–9; advanced, Grades 9–12. Forms A and B at each level. Each form presents a series of 15 or 20 problems or situations. For each situation, the pupil answers a multiple-choice question indicating what he would do and then selects from a list of choices the reason for his action. The procedure will appeal to teacher-counselors, although it is rather awkward from the standpoint of a test technician. Yields scores in the following five areas: coöperation, friendliness, integrity, leadership, and responsibility. Also yields a score for critical thinking. Results may be shown in profile form. No time limit; administration time, 30 to 45 minutes. According to manual of directions, reliability coefficients obtained from correlating Form A with Form B range from .654 to .912. Forty-two correlations of test scores with teacher estimates of their pupils on the five characteristics range from .206 to .781, with a median of .568. The median is fairly high for correlation of test scores with this kind of validity criterion. Adequate appraisal must await further research on this rather new instrument.

Woodworth, R. S., and Mathews, E. *Personal Data Sheet.* Chicago: C. H. Stoelting Company, 1924. $3.75 per 50 copies; specimen set, $1.00 (IV).

One of the oldest personality measures. A revision for high school use based on the original test of emotional stability devised by Woodworth. A questionnaire for obtaining a measurement of the general emotionality and nervous and mental stability of preadolescent and adolescent children. One form. Ages 9–18 years. Norms based on unselected group of 1034 cases. Flemming and Flemming (36) compared scores made by children on the test with ratings of emotional balance made for the children by teachers two years earlier, and found no relation between the tests of emotional stability and the teachers' estimates of emotional balance. The time interval between the ratings and the test is a limitation of the study. Wrightstone (125) found the Woodworth-Mathews sheet fairly valid for diagnosing certain personality disorders of children.

## STUDY HABITS AND ATTITUDES

Study habits and attitudes are not precisely qualities of personality, but to a considerable extent they reflect personality characteristics. Inventories of study habits probably more properly have a place in a chapter on personality inventories than in any of the other chapters.

Scales for obtaining scores in the field of study habits which may be employed in connection with personality or interest inventories that are already widely used have intriguing possibilities for measurement in this area. As mentioned in an earlier section of this chapter, Young and Estabrooks (126) prepared some years ago a "studiousness scale" for the Strong Vocational Interest Blank

for Men. Williamson (120, 121) found low correlation between scores on the studiousness scale and the marks of university freshmen.

The following three inventories are among the better-known instruments for the appraisal of study habits, attitudes, and procedures.

Brown, William F., and Holtzman, Wayne H. *Survey of Study Habits and Attitudes.* New York: The Psychological Corporation, 1953. $2.00 per 25 booklets; $1.85 per 50 machine-scorable answer sheets; scoring keys, 50 cents; specimen set, 60 cents (IV).

Consists of 75 statements concerning work and study habits and attitudes to which the individual responds by marking *r,* rarely; *s,* sometimes; *f,* frequently; *g,* generally; or *a,* almost always. One form. Separate answer sheets must be used. Working time about 15 to 25 minutes. Standardized on freshmen in ten colleges but may also be used in counseling eleventh- and twelfth-grade pupils. A special counseling key is available. Separate percentile norms for men and women. Test-retest reliability coefficients of .95 for men and .93 for women with a two-week interval are reported in the manual. For an 11-week interval, the reliabilities are .88 and .84 for men and women, respectively. Correlations of inventory scores of men with one semester grade point averages range from .27 to .66 with an average of .42; for women, they range from .26 to .65 with an average of .45. Correlations of the inventory scores with scores on the American Council Psychological Examination are reported to be low. Multiple correlations of study habits inventory and ACE with one semester grades reported as .63 for women and .73 for men. *Reference:* Holtzman and Brown (55).

Traxler, Arthur E. *Survey of Study Habits,* Experimental edition. New York: Educational Records Bureau, 1944. 8 cents per copy; specimen set, 25 cents (IV).

Planned as a checklist of study habits and procedures of pupils in Grades 8 through 14. Contains 85 suggestions regarding study, such as "do your work regularly from day to day," "look over the work to see that you understand what you are doing," "stick to a task even though it is difficult or disagreeable," "compare viewpoints of different authorities," and so forth. The 85 items, which are grouped according to 17 general headings, were derived in part from mimeographed materials employed in the University of Chicago and from Whipple's *How to Study Effectively.* Subject answers the question "Do you?" about each item and checks in the appropriate spaces under "seldom or never," "sometimes," or "usually or always." Intended mainly as an instrument for counseling on the basis of individual items, but simple scoring procedure may be used. Independent school norms based on this procedure are available for each grade level from Grade 7 through Grade 12. One form. Spearman-Brown split-half reliability, or internal consistency, as follows: 119 independent school pupils in Grade 10, .912; 137 independent school pupils in Grade 12, .908. Correlations with achievement test scores, with school marks, and with teachers' estimates of study habits, tend to be positive but low. Suggested as an instrument for use in counseling interviews rather than as a test. A guide in helping pupils improve study habits and skills is available for use in connection with the checklist (112).

Wrenn, C. Gilbert. *Study Habits Inventory,* 1941 revision. Stanford University, Calif.: Stanford University Press, 1941. $1.00 per 10 copies (IV).

The oldest and no doubt the best-known inventory of study habits. Contains 28 items grouped under A, reading and note taking techniques; B, habits of concentration; C, distribution of time and social relations in study; and D, general habits and attitudes of work. Subject responds to each item by checking in one of three columns headed "rarely or never," "sometimes," and "often or always." Responses are assigned weights according to Wrenn's research data. A total score may be obtained, but it is recommended that more attention be given to the scores on the individual items. One form. Suitable for use with senior high school pupils and college students. There is a manual by Wrenn and Larsen for use in connection with this inventory (124). Reported correlations of inventory scores with grade point averages range from .24 to .58.

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CHAPTER VIII

# *Appraisal of Personal Qualities: Rating Scales, Behavior Descriptions, Anecdotal Records, and Sociometric Devices*

## RATING SCALES

THE INSTRUMENTS FOR THE APPRAISAL OF personal qualities discussed in Chapter VII were based on the reaction of the individual to a series of questions or situations. Closely related to the self-inventories which formed an important part of that chapter are the behavior rating scales in which the rating of the pupil is done by counselors, teachers, parents, or others, rather than by the pupil himself.

A limitation to the use of rating scales is that unless the rater is well acquainted with the individual being rated or has perfected a technique for getting reliable information from persons who do know the subject intimately, the ratings will probably be low in validity. On the other hand, persons are less likely to be biased in their judgments concerning others than in their estimates of themselves, and it has been demonstrated that the reliability and validity of ratings can be increased by combining those secured from several judges concerning the same individual.

There are several well-known rating scales, such as the Vineland Social Maturity Scale and the Haggerty-Olson-Wickman Behavior Rating Schedules. On the whole, however, instruments designed for use in the rating of individuals by others, as contrasted with self-rating scales, such as those discussed in the preceding chapter, seems to have declined in recent years. Very few new rating scales have been published, while a number of worth-while scales that were formerly available, such as the Freeman-Kawin Teacher's Rating Scales for Pupil Adjustment, the Hayes Scale for Evaluating the School Behavior of Children Ten to Fifteen, and the B E C Personality Rating Schedule, by Rulon, Nash, Woodward, and others, have been allowed to go out of print.

One advantage of rating scales over questionnaires is that they may be used with children who are too young to read questionnaires or to evaluate their own reactions. Marston (42) has published an instrument entitled Introversion-Extroversion in Young Children which may be used in rating traits of children between 2 and 6 years of age. The Merrill-Palmer School has published 19 Personality Rating schedules for young children (53).

Schedule B of the Haggerty-Olson-Wickman blank is a graphic rating scale. In this type of scale the pupil is rated with respect to a certain characteristic by placing a check mark at an appropriate place on a continuous line. The rater indicates where he thinks the individual falls between the two extremes of behavior of that particular type. Descriptive statements are sometimes printed below portions of the scale to help define the thinking of the rater. Test technicians tend to prefer the graphic rating scale to other types.

One difficulty with the usual procedure of using rating

scales is that the ratings are frequently subject to "halo effect"; that is, the rating assigned to the pupil on one trait often influences the rating which is assigned to him on the next trait. Halo effect can be reduced by having the rater judge all the individuals in the group on a single trait, then rate all the individuals on the next trait, and so forth. Some rating scales provide for the use of the latter procedure. A plan of this kind is used in filling out the Behavior Description Form which is described later in this chapter.

## ANECDOTAL RECORDS[1]

During the last 25 years, some schools have used a device for the appraisal of personality known as the anecdotal record. This record, as the name implies, involves setting down an anecdote concerning some aspect of pupil behavior which seems significant to the observer. There is no standardized technique for the making and utilizing of anecdotal records, but there are many points of similarity in the plans described by different writers.

Records of this kind were discussed in a report entitled "Personnel Methods," a supplement to the *Educational Record* published in 1928 by the American Council on Education, but these records were called descriptions of personality.

The term "anecdotal record" apparently originated at the Rochester Athenaeum and Mechanics Institute[2] (50), which was a leading institution in the introduction of such records. In the early 1930's, Wood (73), Tyler (66), and others began to direct the attention of schools to anecdotal records.

Among the various definitions of the anecdotal record, the following are especially significant:

> The anecdotal record is a specialized form of incidental observation. It is a description of the child's conduct and personality in terms of frequent, brief, concrete observations of the pupil made and recorded by the teacher. [Strang (61).]
>
> An anecdotal record is a report of a significant episode in the life of a student. [Raths (51).]
>
> Anecdotes are descriptive accounts of episodes or occurrences in the daily life of the student. [Brown and Martin (14).]
>
> Here used, the anecdotal record is a simple statement of an incident deemed by the observer to be significant with respect to a given pupil. [Zahn (77).]

[1] Anecdotal records and behavior descriptions are discussed in this chapter rather than in the chapters on personnel records because their main purpose is the securing of evaluative data instead of the organizing and relating of different types of evaluations. They are comparable to test papers in that they constitute primary sources of data and not secondary sources as do most other kinds of personnel records.

[2] Now the Rochester Institute of Technology.

> . . . descriptions of actual behavior taking place in situations noted by the instructor, in contrast with rating scales which provide records only of the summary interpretation of the behavior observed. [Tyler (66).]
>
> As used there [the Rochester Athenaeum and Mechanics Institute], the anecdote is a record of some significant item of conduct; a record of an episode in the life of the student; a word picture of the student in action; the teacher's best effort at taking a word snapshot at the moment of the incident; any narrative of events in which the student takes such part as to reveal something which may be significant about his personality. [Randall (50).]

## CHARACTERISTICS OF A GOOD ANECDOTE

The natural tendency of an untrained observer when reporting an incident is to mix facts and opinion, but this is not desirable. Objectivity is the essence of a good anecdote.

One who is just beginning to experiment with anecdotes may be helped if he draws an analogy between the writing of anecdotes and good news reporting. A newspaper contains both news items and editorial opinion, but as a rule these are carefully separated. The function of the anecdotal writer, like the function of the news writer, is to report the facts accurately, objectively, and dispassionately.

The following is an anecdote from an untrained observer:

> In study hall today, George showed his great desire to get attention, particularly from girls, by whispering and clowning for the benefit of everyone about him whenever he thought the teacher's attention was elsewhere. He seems to be a born trouble-maker who will be a bad influence in this school. I think the principal and his counselor should call him in and take strong action before it is too late.

The phrases "showed his great desire to get attention," "born trouble-maker," and "bad influence in this school" are matters of opinion that have no place in a report of the incident itself. An objective report of what took place would read approximately as follows:

> *Incident.* In study hall today, George whispered frequently and created a disturbance by various antics which attracted the attention of the pupils sitting near him.

This is a brief, clear statement of what took place. Some authorities on this method would limit the anecdotal record to a report of the incident, but most of them agree that it is sometimes desirable to add an interpretation, if it is clearly separated from the incident. The

interpretation can well be placed in a separate paragraph or column carefully labeled thus:

*Interpretation.* George seems to be a boy who wants much attention from other pupils, particularly girls. He manages to get some of the attention he craves, but his classmates seem more annoyed and disgusted than amused.

Occasionally a recommendation is also helpful, provided it is separated from both incident and interpretation. It can be placed in a separate short paragraph, as follows:

*Recommendation.* It would be advisable for George's counselor to find an opportunity to talk with him about his relations with the other students and the school generally, and to make suggestions which will improve the boy's adjustment before he becomes a serious problem case.

An important advantage in separating the interpretation and the recommendation from the report of what was observed is that persons interested in obtaining an impartial appraisal of the pupil by summarizing many different anecdotes can deal with the incidents and entirely ignore the subjective parts of the record. This procedure will keep the points of view of different teachers from influencing the conclusions.

It may be felt that the mere report of an incident without interpretation is of such slight importance that it can be of little value in helping a counselor to understand a pupil. This opinion is no doubt justified if a single anecdote is considered alone, but ordinarily anecdotes are not used in that way. The anecdotal method is essentially cumulative in nature. While a single incident may not be at all typical of the behavior of the pupil concerned, the assembling and studying of many anecdotes, together with the other information the school has recorded about a pupil, present a pattern of individual personality that is most helpful in a counseling program.

## SITUATIONS IN WHICH THE ANECDOTAL METHOD IS APPLICABLE

Should anecdotes be prepared for problem cases only, or should this method be applied to all pupils? Olson (48) has developed the problem-behavior journal, which is designed especially for personal and social behavior problems, and this plan is used to advantage in the University Elementary School, University of Michigan. The Canadian psychologists, Blatz and Bott (6), likewise have made extensive use of the problem-record log by having teachers make journal entries of misdemeanors by weeks. One possible advantage in confining the method to behavior problems is that the number of anecdotes to be prepared will be relatively small, and, consequently, the plan can be introduced into a school without greatly adding to the work of the staff.

However, the majority of those who have worked with the anecdotal method are in favor of using it with all pupils, and Olson and others who have employed the problem-behavior log agree that the method is applicable on a wider basis. It has been pointed out that when anecdotes are prepared for all pupils, the use of this method serves to help direct the attention of teachers toward inconspicuous pupils who otherwise might never be really known by their teachers. Moreover, it is felt that if anecdotes are to present a truly developmental picture for each individual, they should not be confined to problem matters but should contain positive and constructive features through reporting admirable behavior and outstanding achievement, as well as the other side. The present tendency, therefore, is to regard the anecdotal method as applicable to all pupils and all situations, except on rare occasions when counselors or teachers share confidences with pupils which should not be written down.

Some schools now follow the plan of designating positive anecdotes, or those which are in harmony with character objectives, with a certain type of symbol, and negative anecdotes, or those which are not in harmony with these objectives, with a different type. Thus one may obtain a rough quantitative measure of a pupil's growth by counting the number of positive and of negative symbols for different time intervals (10).

## STEPS IN AN ANECDOTAL RECORD PLAN

Procedures for the introduction, preparation, and use of anecdotal records have not been standardized, and it would not be desirable to standardize them, but it appears that certain steps are needed when records of this kind are being introduced into a school regardless of modifications to meet the local situation.

### ENLISTING COÖPERATION

At the outset, the entire faculty of the school should be given an understanding of what is involved in the anecdotal record plan, and willingness to coöperate in trying out the method should be created. Counselors, as a rule, tend to favor the plan, for they can see possibilities of immediate and direct help from it in connection with their work, whereas some of the teachers may at

first be unable to see the value of these records and may feel that they are just an addition to the load they are already carrying. It is the teachers, however, whose attitudes and coöperation are most essential to the success of the plan, for they have a better opportunity to observe pupil behavior than do the other members of the staff. The success of the plan depends largely upon them, for they write the great majority of the anecdotes.

The introduction of anecdotal records should begin with the development within the faculty of the ideal of individualized education. The anecdotal method rests on an interest in individual boys and girls, a grasp of the concept of individual differences, a conviction that the development of each pupil is more important than the teaching of subject matter, and a knowledge that teaching effectiveness increases in proportion to one's acquaintance with the individuals composing the class. Until the faculty members have reached a point in their thinking where they believe that the study of pupils is at least as important as the teaching of their subject, they are not ready to participate whole-heartedly in the preparation of anecdotal records. Schools whose staff members have already reached that point should find these records an easy and logical next step.

## DECIDING HOW MUCH SHOULD BE EXPECTED OF OBSERVERS

When a faculty has decided to try out the anecdotal method, the next step is to arrive at an understanding of what shall be expected of those who are to write the anecdotes. This step involves two dangers. The first is that too much will be attempted and that the staff will become discouraged because so much time is required. The second is that after it has been agreed that anecdotal records are a promising approach to the investigation of pupil personality, the whole matter will be left to the individual whim of each teacher. The probable net result will be that the plan will resolve itself into an expression of good intentions with little or no tangible result. It seems desirable to decide on some reasonable minimum number of anecdotes which each teacher will write each week. It is not easy to say just what constitutes a "reasonable minimum number." Probably the best plan in deciding what can reasonably be expected of observers in a given school is to set aside an experimental week in which each teacher will prepare as many anecdotes as possible, after which a meeting can be held to study the anecdotes and to find out how many of them various teachers have written. This procedure will be advantageous both for showing the number of anecdotes that teachers should be able to write and for obtaining criticism on the anecdotes which have been prepared.

Another plan is to choose certain aspects of behavior, such as coöperation or punctuality, and to ask all the teachers to observe the pupils and write anecdotes concerned with these particular kinds of behavior. A plan of this kind for limiting the scope of the project has the advantage of focusing the attention of the teachers on a few traits. This helps to keep them from becoming overwhelmed and discouraged in the very beginning by the size of the undertaking.

It may be feared that the writing of anecdotes will become routinized and perfunctory if teachers are asked to submit a certain minimum number. Some persons will insist that teachers should be requested to write anecdotes only when they observe behavior that they feel is worth recording. The danger here is that some teachers will not be led to observe the pupils carefully and that they may record only striking behavior that may not be at all typical of the pupil. Behavior is a continuing process, and it is probable that during any class hour every pupil in the group exhibits behavior that brings out his personal qualities in a significant way, if only the observer is alert and sees the behavior and grasps its implications.

## PREPARING FORMS

The anecdotal record does not require elaborate forms. In fact, two or three simple ones are usually sufficient. There must be, first of all, forms for the original record to be made by the teacher or other observer. Each faculty member should be supplied with these.

The form for the original record may be placed on a small card, a half-sheet, or an ordinary letter-size sheet. When a card or a half-sheet is used, it is assumed that there will be only one anecdote on each form, while the full-size sheet may serve for the writing of several anecdotes about the same pupil.

A form which, it is believed, should prove adequate in most classroom situations is shown in Form 5. The same four columns can be ruled on the back, if desired. If this is done, five or six anecdotes can frequently be entered on one sheet. The date and the place should be given in connection with each anecdote. The behavior observed should be stated clearly, concisely, and objectively under *incident*. Both interpretation and recommendation can be entered in separate paragraphs under *comment*. It should be understood that there is no necessity for writing anything under *comment* unless the observer feels that a comment will help the counselor understand the incident. The name of the observer should be signed at the bottom of each anecdotal record page.

If a letter-size record sheet of this kind is adopted for classroom use, it may be desirable to supplement it with some small cards, particularly if the members of the staff

ANECDOTAL RECORD

Pupil------------------------------------------------Class-----------------

| Date | Place | Incident | Comment |
|---|---|---|---|
| | | | |

Observer--------------------

**FORM 5.**

are encouraged to write anecdotes concerning behavior outside class.

Cards similar to the one illustrated in Form 6 are easily carried and are convenient for the making of quick notes when there is an occasion to do so.

A third form that some schools may use is one for organizing and summarizing periodically the anecdotes from the various staff members. Other schools may avoid the use of a secondary-entry form of this type through a system of filing the original records. A form for summarizing anecdotes periodically is suggested in Form 7.

The anecdotes should be arranged in chronological order in the periodic summary. The name of the staff member reporting the anecdote should be entered under *observer*. Under *anecdote,* a brief statement of each incident, ordinarily without interpretation or recommendation, will be transferred from the original record.

At the end of each year, the periodic summary sheets may be used in preparing an annual summary for the cumulative record. The annual summary may take one of several different forms, depending on the nature of the cumulative record employed in the local school. These will be discussed later.

## OBTAINING THE ORIGINAL RECORDS

It is seldom convenient for a teacher to write an anecdote at the moment the incident takes place. Many incidents that should be recorded occur during class discussion or immediately before or after class, when a multitude of different things is claiming the attention of the teacher. If the teacher stopped to record significant behavior as it took place, the continuity of the work of the class would be interrupted and in the minds of the pupils undesirable importance would be attached to the preparation of anecdotes. At most, the teacher can find time merely to jot down the name of the pupil, with perhaps a phrase to call the incident to mind later.

In order to be successful in preparing anecdotes, teachers must learn to observe the behavior of individuals accurately, to remember what took place, and to make a record of each incident later when they are free to give their entire attention to the writing of the anecdotes. It is advisable for each teacher to set aside a certain period toward the end of each day—perhaps 15 to 30 minutes—for the preparation of anecdotes concerning all the significant behavior incidents they have observed earlier in the day.

One who is engaged in the making of anecdotal records should check occasionally to see how the anecdotes are distributed among the various pupils. It may be found that there are many anecdotes for some pupils and very few or none at all for others. If this proves to be true, attention should consciously be directed toward those quiet members of the group whose behavior is so inconspicuous that their individuality has previously failed to impress itself upon the observer. It would be inadvisable to attempt to prepare the same number of anecdotes for all pupils, but it seems fair to assume that in the course of a semester a teacher should be able to write several anecdotes for every pupil in his classes.

## CENTRAL FILING

Anecdotes concerning any individual take on added meaning when those written by different observers over a period of time are brought together and compared. It is highly desirable, therefore, that a system be worked out in each school whereby the anecdotal records for each

Pupil________________________________________Date____________________

Class________________________________________Place___________________

ANECDOTE

Observer________________

**FORM 6.**

pupil are collected in one place at regular intervals, so that they may be studied in relation to one another. If certain teachers wish to retain in their own files a record of the anecdotes they prepare, they can easily make carbon copies when writing the originals.

In schools that have well-established counseling systems, the anecdotes for each pupil will naturally be sent to the office of his counselor, where they will be utilized in conferences (although usually not shown to the pupil) and filed in individual folders. In other schools, the homeroom teachers will be the logical persons to receive the anecdotes. In small schools where the principal is the chief guidance officer, the anecdotes will probably be filed in his office. Anecdotal records should be filed in the office of that functionary who will make the most use of them in guidance.

The frequency with which the anecdotes are collected should be determined by the local situation. In some schools they are brought together at the end of each week, whereas in other schools they are collected at longer intervals.

## SUMMARIZATION

Even though it is time-consuming, a carefully developed procedure for summarizing anecdotes is highly desirable. When the school reaches the point where the teachers have been trained in the writing of anecdotes and have accepted the preparation of them as one of their responsibilities, it is in the organization and summarization of the anecdotal material that the system is most likely to break down. If all teachers conscientiously turn in several anecdotes each day, the wealth of the material obtained may overwhelm those responsible for summarizing it, since a great many anecdotes will be collected for nearly every pupil in the school within the course of a year. At the Rochester Athenaeum and Mechanics Institute, for example, the average number of anecdotes reported for 520 students during the first semester of a school year was 46 (50). At this rate, 92 anecdotes for each student would be obtained in one school year. It is no small task to go through so much material for even one student, to discover trends in personality development, and to reduce all that material to a brief, usable statement for the cumulative record.

If there is sufficient staff time available for the making of periodic summaries, perhaps once a month, on blanks similar to the one shown in Form 7, the task of summarizing at the end of the year should be greatly simplified. If the periodic summary consists merely of a chronological arrangement of "boiled-down" statements of the behavior incidents collected from the various staff members concerning each pupil, it can probably be entrusted to intelligent clerical workers. The annual summary, however, which involves interpretation and a statement of trends and growth to be entered on the cumulative record, is no clerical task. It calls for the best knowledge and thinking that are available for this work. Ordinarily,

PERIODIC ANECDOTAL RECORD SUMMARY

Pupil________________________________________Grade________________

From______________________________To______________________________

| Date | Place | Observer | Anecdote |
|---|---|---|---|
| | | | |

**FORM 7.**

the annual summary should be prepared by the counselor, or better still, by a committee consisting of the counselor, the pupil's teachers, and the psychologist.

If it is the custom in the school to obtain a checking of certain personality traits of each pupil on a rating scale, or if a behavior-description form is employed, the annual summary of the anecdotal material may readily be made to conform to the rating scale or the behavior

description. This point will be discussed at greater length in another section of this chapter.

## LIMITATIONS AND CAUTIONS IN THE PREPARATION OF ANECDOTES

Several limitations and dangers are inherent in anecdotal records, although these can be minimized by observing certain cautions. A number of these have already been suggested, but a more formal listing of them may be helpful.

1. It is apparent, of course, that an anecdotal record can be valuable only if the original observation is accurate and correctly recorded; otherwise, it may be worse than useless. Court records provide ample evidence that reports of observation are often faulty. Frequently, persons do not see what they think they see nor hear what they think they hear. In the school situation, there is especial danger that some observations will be faulty, for in conducting a class a teacher may be able to give only partial attention to a behavior incident and still keep the discussion moving. Great care must, therefore, be observed. The first rule in the writing of an anecdote is to make sure that the report of behavior is correct. It is far better to omit an anecdote entirely than to turn it in if there is a possibility that it may be incorrect in any detail.
2. Many persons find it extremely difficult to write with complete objectivity, but practice will do a great deal to overcome the tendency to intersperse the report of behavior with statements of opinion. A report of an incident should be as cold and impartial as an X-ray photograph. If the teacher must "let himself go" in describing the incident, he can do so under *comments,* where his remarks will not be prejudicial.
3. A pernicious but fortunately rare use of anecdotal records is their employment for the defense of the person making the report. The central purpose of every anecdotal record is to help the entire school staff to obtain better understanding of a given student. Such a record should never be written to explain or justify action on the part of the teacher. Needless to say, if a behavior incident has created an emotional reaction in a teacher, he should not attempt to prepare an anecdote about it.
4. It is evident that there is danger in lifting a behavior incident out of the social setting in which it occurred and in reporting it in isolation. This is true especially when under the stimulus of group sentiment and action a pupil may behave in a way that is not typical of him. Observers should remember that a brief description of the background against which an action took place is often essential in the reporting.
5. At best, only a small proportion of the total number of significant behavior incidents for any pupil will find its way into anecdotal records. One who is summarizing and interpreting anecdotal records should guard against a tendency to accept a small number of anecdotes as valid evidence of the total picture. The danger at this point will be minimized as more and more anecdotal material is accumulated.
6. Some persons fear that anecdotes, through preserving a record of unfortunate behavior incidents on the part of certain pupils, may prejudice their success long afterward, when the behavior is no longer typical of them. There is ground for this fear if the school carelessly allows the anecdotes to fall into the hands of irresponsible persons. The original records should be regarded as confidential material for which the counselor, or other person entrusted with the care of them, is personally and professionally responsible. On the other hand, the annual summary of the anecdotes, since it does not report specific incidents but is a general statement of development, is no more confidential than the rest of the cumulative record.
7. It cannot be emphasized too strongly that the adoption of a system of anecdotal records is no small commitment and that it will add inevitably to the load of the entire school, particularly the counselors and the clerical staff. A definite and workable plan for handling the additional clerical work and for summarizing the anecdotes should be developed before the writing of anecdotes is undertaken.
8. It is obvious that the indications in the anecdotal records should be studied and an attempt made to improve the adjustment of the pupils when the anecdotes show that better adjustment is needed. In this connection, however, a caution should be observed. As Zahn (77) has pointed out, ordinarily adjustment is a long-term process. There is some danger that anecdotal records will throw the need for the better adjustment of certain pupils into such high relief that too marked an effort will be made to short-cut the adjustment process. Counselors should remember that personality adaptations frequently involve the formation of new sets of habits and that time is required for this.
9. Undesirable behavior, because of its nuisance aspect, is likely to make a stronger impression on teachers than desirable behavior. There is some danger, therefore, that the total effect of anecdotal records will be negative rather than positive. The staff members of a school should train themselves to observe and record evidences of growth even more diligently than they note retarded personality development.
10. Occasionally teachers will observe incidents that are not at all typical of the behavior of the pupil concerned. Sometimes these may be of such a character that they should be recorded, but ordinarily it is desirable to "select those illustrations of conduct which are consistent with the personality of the student as you have observed and understood it" (50).

## VALUES AND USES OF ANECDOTAL RECORDS

Various uses and values of anecdotal records have been mentioned in preceding sections of this chapter. According to the writers of published articles on the subject, the following are especially noteworthy.[3]

1. Anecdotal records provide a variety of descriptions concerning the unconstrained behavior of pupils in diverse situations and thus contribute to an understanding of the core or basic personality pattern of each individual and of the changes in pattern.
2. They substitute specific and exact descriptions of personality for vague generalizations.
3. They direct the attention of teachers away from subject matter and class groups and toward individual pupils.
4. They stimulate teachers to use records and to contribute to them.
5. They relieve individual teachers of the responsibility of making trait ratings, and provide a basis for composite ratings. Moreover, they provide a continuous record, whereas trait ratings are usually made only at certain points in a pupil's school experience.
6. They encourage teacher interest in and understanding of the larger school problems that are indicated by an accumulation of anecdotes.
7. They provide the information which the counselor needs to control the conferences with individual pupils. An appropriate starting point for each conference can be found in the data, and the discussion can be kept close to the pupil's needs.
8. They provide data for pupils to use in self-appraisal. Whereas in some cases the anecdotes should not be shown to the pupils, each pupil can profitably study the indications in many of the anecdotes about him in order to decide what he needs to do to improve.
9. Personal relationships between the pupil and the counselor are improved by these records, for they show the pupil that the counselor is acquainted with his problems.
10. Anecdotal records aid in the formulation of individual help programs and encourage active pupil participation in remedial work.
11. They show needs for the formation of better work and study habits and also provide encouraging evidence of growth in these respects.
12. Curriculum construction, modification, and emphasis may be improved through reference to the whole volume of anecdotal record material collected by a school. The anecdotes indicate where there should be general presentation of material in character development to satisfy the needs of the whole school community.
13. An appropriate summary of anecdotes is valuable for forwarding with a pupil when he is promoted to another school.
14. Anecdotal records may be used by new members of the staff in acquainting themselves with the student body.
15. The qualitative statements contained in these records supplement and assist in the interpretation of quantitative data.
16. Collections of anecdotal records may provide the necessary validating evidence for various evaluative instruments. For instance, when the results of the Bernreuter Personality Inventory indicate that certain pupils are high in dominance and others are low, the anecdotal record material for these pupils may be analyzed to find out whether or not the Bernreuter scores agree with the observations of behavior.
17. Anecdotal records aid in clinical service. When pupils are referred to clinical workers for special study of their problems, there is a great advantage in having these records available for these highly trained workers to interpret. In this connection, Charters (17) makes the following significant observation concerning the anecdotal records of the Rochester Athenaeum and Mechanics Institute: "How penetrating the accumulated emphasis of these anecdotes is was put to a test recently when a psychiatrist came to the faculty for information about a student who had been brought to him as a mild case for observation. As he and the supervisor exchanged impressions, it appeared that the psychiatrist had uncovered no characteristics that were not already recorded among the anecdotes."

[3] For additional information concerning values and uses of anecdotal records, see especially Brown and Martin (14), Charters (17), Randall (50), Raths (51), Wood (73), and Zahn (77).

## SAMPLE ANECDOTES

The following anecdotes, consisting of reports from four different teachers about the same pupil, show clearly a need for counseling to bring about better adjustment (34:197).

*Teacher 1.* Objective Description: John was late and was told to go to the dean's office for an entrance pass to class. He did not return all period. Another pupil who was late was sent to the same office for a pass, and when he returned was questioned as to the whereabouts of John. The second pupil reported he had not seen him at the dean's office.

Comment: On first writing this anecdote the observer thought that John resented being sent to the dean's office and to show this had cut class. However, the next day it was learned that he had gone to the nurse complaining of illness. To the observer, it represents a shifting of responsibility.

*Teacher 2.* Objective Description: John became angry when the assignment was longer than he thought it should have been. He said, "I'm not goin' to do that work."

I told him to do what he thought best about it. The next day the assignment was done.

Comment: I believe that John is subject to sudden outbursts of temper. During these times it is useless to talk to him because he seems to expect an argument. I have observed this several times and, after almost every such experience, he does the thing he knows is right, even though he has opposed it.

*Teacher* 3. Objective Description: Donald, when talking with me, stood beside John's desk. Upon taking his seat, John said, "Donald has the top of my pen." This Donald denied. John insisted, telling him to look in his pocket. There it was found.

Donald immediately handed it to John, saying to me, "He put it there himself. He's always trying to get others in bad."

Comment: I knew John put the top of his pen in Donald's pocket. I have observed that he is very anxious to have attention from boys in the Leaders' Club. He is a member, but does not seem to be entirely taken into the group. Hence his attempts at attention.

*Teacher* 4. Objective Description: I asked John to sit up front near my desk because he kept annoying his neighbors, even after two warnings.

Comment: John seldom seems to have any work to do, and delights in annoying his neighbors.

The next series of anecdotes, written by an English teacher about a backward pupil, provide encouraging evidence of improvement (15:198–199).

*English Teacher.* Objective Description: Tom informed me before class that he had finished his library book, *The Story of David Livingstone,* which I helped him select last Friday.

Comment: Tom has the lowest score of any freshman on the Iowa test. He usually labors through a book, if he finishes it at all.

This book he liked very much, and I was proud of this achievement—a book read in one weekend.

*English Teacher.* Objective Description: Tom answered "Unprepared" when the chairman of the Book Club announced him on the program. I asked to see him after school.

Comment: I knew Tom had a book which he had told me he liked. I asked him whether he had read it all. He said he had, but that he couldn't pronounce the names, and he couldn't make a story out of it for the class. I asked why he had not come for help before our meeting. He said he did not think about doing that.

After more questioning, I came to the conclusion that he would have to get even simpler material. He asked me to find another book for him. There are very few books in the library within his capacity, and they are usually out of circulation.

*English Teacher.* Objective Description: I sent for Tom before school to give him the library book he requested me to choose for him. He promised to "look it over" and to let me know in class whether he wished to keep it. By afternoon he informed me he had read 103 pages! "This is interesting," he volunteered.

Comment: That he had finished 103 pages amazed me. Of course, I praised him, and told him of a sequel to the same book.

I have never known the Silver Chief books to fail in their appeal to freshman boys who are very low in their reading ability. We need more books of this caliber.

*English Teacher.* Objective Description: Before class Tom stopped at my desk to tell me that the librarian had promised to let him know when the sequel to Silver Chief was available.

"Have you finished this one already?" I asked.

He grinned. "Yes, I have."

Comment: This is the same book that started another boy on his reading "career."

I wish we had more books with such a universal appeal for non-readers.

*English Teacher.* Objective Description: Tom was responsible for an oral assignment today. When called upon, Tom shook his head and said he was unprepared.

I asked him to come after school for a talk with me.

*English Teacher.* Objective Description: Tom is one of my poorest readers, so I wondered at first whether the assignment had been too difficult, but Tom said he knew his assignment without any notes even. Sitting beside my desk, he told his story. I asked him to tell it again, and suggested several improvements. He did it better. I asked him to do it a third time, so that he was thoroughly familiar with it. Then I asked him to go to the rear of the room, and tell his story to me.

"I don't want to do that," he said.

Comment: This is the real difficulty.

*English Teacher.* Objective Description: Tom was prepared today with his oral report, which he gave without apparent nervousness. It was short, but a real achievement, nevertheless.

Note how the following series of anecdotes present a picture of personality development.[4]

| *Date* | *Observer* | *Anecdotal Record* |
|---|---|---|
| Sept. | Supervisor | Dorothy's stunt in the Retailing Party was highly original. Her attitude was abrupt and superior. The other girls avoided her. |
| Nov. | Teacher 9 | She monopolized the entire group discussion today. |
| Dec. | Teacher 8 | She told me in conference that the other students do not like her. I tried to explain that it would be desirable to be a little less aggressive and to avoid giving the appearance of feeling superior. She said little in reply and I do not know whether or not I got the idea across. |

[4] Adapted from Wood (73).

| *Date* | *Observer* | *Anecdotal Record* |
|---|---|---|
| Jan. | Teacher 7 | Dorothy came to me for advice on overcoming characteristics which make students dislike her. She took a difficult assignment in color and design which involved doing a costume analysis and prescription for a classmate who seemed antagonistic to her. She is doing a good job with it. |
| March | Teacher 7 | She gave the other students opportunity to discuss and to work out their share of group assignments. |
| April | Teacher 7 | Several students have told me that they feel she is not so much self-centered as ambitious. They said that she was gaining the cooperation and confidence of nearly all her classmates. |
| May | Teacher 8 | In the sorority, Dorothy has become the person (next to the president) to whom people turn for suggestions, assistance, and leadership. This is true of those who first resented her. |

A summary statement for this student's cumulative record might read as follows:

At the beginning of the year, Dorothy's manner was so aggressive, self-centered, and superior that she was very unpopular with the other students. She became aware of her shortcomings and tried, with the help of some of her teachers, to change her behavior. She was so successful that she won the coöperation and confidence of her fellow students, and at the end of the year she was regarded as a leader by her group.

## RELATION OF ANECDOTAL RECORDS TO PERSONALITY RATINGS AND BEHAVIOR DESCRIPTIONS

Anecdotal records, when properly prepared, provide rather highly objective information which need not replace rating or behavior description plans already established in a school but which may be used as a valuable supplement to established procedures. If a school is using a personality rating scale, the teachers and counselors should be encouraged to keep in mind the traits which are emphasized in the scale and to try to prepare anecdotes which will throw light on these traits.

Some schools, particularly certain progressive ones, have used for the appraisal of the personality of their pupils the Behavior-Description plan devised by the Reports and Records Committee of the Eight-Year Study of the Progressive Education Association (59). This plan was designed to secure and record in permanent form judgments of behavior with respect to the traits which the committee decided, after extensive study, were important. It consists of a "behavior-description" filing and transfer card in the form of a folder, a sheet to be used by the teacher in making a report on the pupils, and a "trait-study" manual containing complete directions. The traits included are responsibility-dependability, creativeness and imagination, influence, inquiring mind, openmindedness, power and habit of analysis, social concern, emotional responsiveness, serious purpose, social adaptability, work habits, physical energy, assurance, self reliance, and emotional control. A series of descriptive statements is given in connection with each trait and the teacher indicates the one which describes the pupil best. The trait-rating sheets are sent by the teachers to the records office, where the judgments concerning each pupil are transferred to the individual record folders by clerical service. Space is provided on the pupil's folder for recording the judgments of all his teachers from Grade 7 through Grade 12.

Since the Progressive Education Association was discontinued in 1955, the Behavior Description forms are no longer purchasable, but any school is free to use part or all of this plan, which was the result of the thought and coöperative effort of specialists in the field of evaluation and recording procedures. In order to make the Behavior Description form readily available, the front and back of this folder, filled out with a sample record, are shown in Forms 8A and 8B.

A slightly abbreviated adaptation of the Behavior Description folder was incorporated into the revised American Council on Education Cumulative Record Cards, which cover all levels from the kindergarten through college (41).

As Wood (73) has pointed out, there is no conflict between anecdotal records and behavior descriptions; on the contrary, these plans are supplementary. Anecdotes provide the basic material for behavior descriptions, and there is little doubt that the validity and efficiency of the behavior-description plan is enhanced when there is a wealth of anecdotal material available for reference.

Another scale which is essentially a device for obtaining behavior descriptions under standardized conditions is the Vineland Social Maturity Scale, by Doll (21, 22). A unique feature of this blank is that it yields an age scale and an SQ, or social quotient, roughly analogous to the IQ. The scale may be applied to subjects from birth to 30 years of age.

NORTON, ROBERT SAMUEL BEHAVIOR DESCRIPTION THOMAS JEFFERSON HIGH SCHOOL

LAST NAME FIRST MIDDLE (EXPERIMENTAL FORM) SCHOOL

THIS REPORT DESCRIBES THE CHARACTERISTIC BEHAVIOR OF THE STUDENT IN A NUMBER OF IMPORTANT AREAS. IT SHOULD NOT BE INTERPRETED AS A RATING. INSTEAD ONE SHOULD READ THE DESCRIPTIONS AND ATTEMPT TO GET FROM THEM AN UNDERSTANDING OF THE PERSON DESCRIBED, AND OF HIS FITNESS FOR PARTICULAR OPPORTUNITIES AND UNDERTAKINGS.

DIRECTIONS:

(1) IN GENERAL THE INITIALS OF SUBJECT OR ACTIVITY FIELDS ARE USED IN THE RECORDING IN ORDER TO IDENTIFY THE RELATIONS BETWEEN THE OBSERVERS AND THE STUDENT. A COMPLETE KEY IS GIVEN AT THE TOP OF THE FOLDED OVER SHEET.

(2) THE SPACES FROM LEFT TO RIGHT, BEING CHRONOLOGICAL, SHOW THE CHANGES OR CONTINUITY IN BEHAVIOR DURING THE PERIOD COVERED BY THE RECORD.

(3) WHILE AGREEMENTS IN DESCRIPTION MAY SHOW A STUDENT'S MOST COMMON BEHAVIOR, THEY MAY NOT BE MORE IMPORTANT THAN AN ISOLATED JUDGMENT WHICH OFTEN HAS GREAT SIGNIFICANCE BECAUSE OF A BETTER BASIS FOR JUDGMENT, OR BECAUSE IT INDICATES A RESPONSE TO SOME PARTICULAR CONDITION, FIELD, OR PERSONALITY.

| RESPONSIBILITY—DEPENDABILITY | GRADE 7 | GRADE 8 | GRADE 9 | GRADE 10 | GRADE 11 | GRADE 12 |
|---|---|---|---|---|---|---|
| RESPONSIBLE AND RESOURCEFUL: CARRIES THROUGH WHATEVER IS UNDERTAKEN, AND ALSO SHOWS INITIATIVE AND VERSATILITY IN ACCOMPLISHING AND ENLARGING UPON UNDERTAKINGS. | | | P | P | P | D |
| CONSCIENTIOUS: COMPLETES WITHOUT EXTERNAL COMPULSION WHATEVER IS ASSIGNED BUT IS UNLIKELY TO ENLARGE THE SCOPE OF ASSIGNMENTS. | E | E-P | | SS | E-AD | E-NS-AD |
| GENERALLY DEPENDABLE: USUALLY CARRIES THROUGH UNDERTAKINGS, SELF-ASSUMED OR ASSIGNED BY OTHERS, REQUIRING ONLY OCCASIONAL REMINDER OR COMPULSION. | NS-SS | NS-SS | E-AD | E-AD | M-F-SS | M-SS |
| SELECTIVELY DEPENDABLE: SHOWS HIGH PERSISTANCE IN UNDERTAKINGS IN WHICH THERE IS PARTICULAR INTEREST, BUT IS LESS LIKELY TO CARRY THROUGH OTHER ASSIGNMENTS. | AD | AD-MU | M-F-NS | M-F | | |
| UNRELIABLE: CAN BE RELIED UPON TO COMPLETE UNDERTAKINGS ONLY WHEN THEY ARE OF MODERATE DURATION OR DIFFICULTY AND THEN ONLY WITH MUCH PRODDING AND SUPERVISION. | A | M | | | | |
| IRRESPONSIBLE: CANNOT BE RELIED UPON TO COMPLETE ANY UNDERTAKING EVEN WHEN CONSTANTLY PRODDED AND GUIDED. | M | | | | | |
| **CREATIVENESS AND IMAGINATION** | | | | | | |
| GENERAL: APPROACHES WHATEVER HE DOES WITH ACTIVE IMAGINATION AND ORIGINALITY, SO THAT HE CONTRIBUTES SOMETHING THAT IS HIS OWN. | | | | | P | NS |
| SPECIFIC: MAKES DISTINCTLY ORIGINAL AND SIGNIFICANT CONTRIBUTIONS IN ONE OR MORE FIELDS. | NS | NS-P | P-AD-NS | E-P-AD | E-SS-AD | E-SS-AD |
| PROMISING: SHOWS A DEGREE OF CREATIVENESS THAT INDICATES THE LIKELIHOOD OF VALUABLE ORIGINAL CONTRIBUTION IN SOME FIELD, ALTHOUGH THE CONTRIBUTIONS ALREADY MADE HAVE NOT PROVED TO BE PARTICULARLY SIGNIFICANT. | E-A-AD | E-SS-AD | E | SS-F | F | D |
| LIMITED: SHOWS THE DESIRE TO CONTRIBUTE HIS OWN THINKING AND EXPRESSION TO SITUATIONS, BUT HIS DEGREE OF IMAGINATION AND ORIGINALITY IS NOT IN GENERAL HIGH ENOUGH TO HAVE MUCH INFLUENCE ON HIS ACCOMPLISHMENTS. | SS | MU | M-F | M | M | M |
| IMITATIVE: MAKES LITTLE OR NO CREATIVE CONTRIBUTIONS, YET SHOWS SUFFICIENT IMAGINATION TO SEE THE IMPLICATIONS IN THE CREATION OF OTHERS AND TO MAKE USE OF THEIR IDEAS OR ACCOMPLISHMENTS. | | M | | | | |
| UNIMAGINATIVE: HAS GIVEN PRACTICALLY NO EVIDENCE OF ORIGINALITY OR CREATIVENESS IN IMAGINATION OR ACTION. | M | | | | | |

**FORM 8A (Front).**

| | | | | | | |
|---|---|---|---|---|---|---|
| **INFLUENCE** | | | | | | |
| CONTROLLING: HIS INFLUENCE HABITUALLY SHAPES THE OPINIONS, ACTIVITIES, OR IDEALS OF HIS ASSOCIATES. | | | | | P | SS |
| CONTRIBUTING INFLUENCE: HIS INFLUENCE, WHILE NOT CONTROLLING, STRONGLY AFFECTS THE OPINIONS, ACTIVITIES, OR IDEALS OF HIS ASSOCIATES. | E-NS-SS-AD | P-NS | P-E-SS | P-E-SS | E-SS-AD | E-NS-AD-D |
| VARYING: HIS INFLUENCE VARIES, HAVING FORCE WHEN PARTICULAR ABILITY, SKILL, EXPERIENCE OR CIRCUMSTANCE GIVES IT OPPORTUNITY OR VALUE. | M-A | E-SS-AD | M-NS-F-AD | M-AD | M-F | M |
| CO-OPERATING: HAS NO VERY DEFINITE INFLUENCE ON HIS ASSOCIATES, BUT CONTRIBUTES TO GROUP THINKING AND ACTION BECAUSE OF SOME DISCRIMINATION IN REGARD TO IDEAS AND LEADERS. | | M-MU | | F | | |
| PASSIVE: HAS NO DEFINITE INFLUENCE ON HIS ASSOCIATES, BEING CARRIED ALONG BY THE NEAREST OR STRONGEST INFLUENCE. | | | | | | |
| **INQUIRING MIND** | | | | | | |
| GENERAL: RESPONDS WITH CONSISTENT, ACTIVE AND DEEP INTEREST TO ANY INTELLECTUAL STIMULUS AND USES TO GOOD ADVANTAGE VARIOUS SOURCES OF INFORMATION. | | | | P | P | AD-SS |
| SPECIFIC: RESPONDS WITH CONSISTENT, ACTIVE AND DEEP INTEREST ONLY TO STIMULI ARISING IN SPECIFIC FIELDS OR PROBLEMS. USES EFFECTIVELY THE SOURCES AVAILABLE FOR SUCH PURPOSES. | AD-SS | AD-P-SS | E-AD-P | E-AD | E-AD-SS | E-NS-D |
| LIMITED: SOMEWHAT SENSITIVE TO STIMULI ARISING FROM LIMITED FIELDS, BUT ENGAGES IN EXPLORATION AND INVESTIGATION ONLY WHEN A GENERAL PLAN OF ATTACKING THE PROBLEM IS INDICATED TO HIM. | E-NS | E-NS-MU | NS-F | M-SS-F | M-F | M |
| DIRECTED: RESPONDS TO STIMULI IN A LIMITED FIELD OF INTERESTS BUT IS IMPELLED TO ACT ONLY WHEN BOTH THE PLAN AND THE DETAILS OF PROCEDURE ARE DEFINITELY OUTLINED FOR HIM. | A | | M | | | |
| UNRESPONSIVE: RARELY SEEMS TO BE SENSITIVE TO ANY INTELLECTUAL STIMULUS AND SHOWS LITTLE OR NO ABILITY TO USE THE TOOLS AND METHODOLOGY OF EXPLORATION AND INVESTIGATION. | M | M | | | | |
| **OPENMINDEDNESS** | | | | | | |
| DISCRIMINATING: WELCOMES NEW IDEAS BUT HABITUALLY SUSPENDS JUDGMENT UNTIL ALL THE AVAILABLE EVIDENCE IS OBTAINED. | | | | AD-F | SS-P-F | AD-SS-D |
| TOLERANT: DOES NOT READILY APPRECIATE OR RESPOND TO OPPOSING VIEWPOINTS AND NEW IDEAS, ALTHOUGH HE IS TOLERANT OF THEM AND CONSCIOUSLY TRIES TO SUSPEND JUDGMENT REGARDING THEM. | AD-SS | E-AD-P | M-AD-NS-P | M-E-SS-P | M-E-AD | M-E-NS |
| PASSIVE: TOLERANCE OF THE NEW OR DIFFERENT IS PASSIVE, ARISING FROM LACK OF INTEREST OR CONVICTION. WELCOMES, OR IS INDIFFERENT TO CHANGE, BECAUSE OF LACK OF UNDERSTANDING OR APPRECIATION OF THE NEW OR OF THAT WHICH IT REPLACES. | M-E-NS-A | M-NS-SS-MU | E-F | | | |
| RIGID: PRECONCEIVED IDEAS AND PREJUDICES SO GOVERN HIS THINKING THAT HE USUALLY ENDS A DISCUSSION OR AN INVESTIGATION WITHOUT CHANGE OF OPINION. | | | | | | |
| INTOLERANT: IS ACTIVELY INTOLERANT; RESENTS ANY INTERFERENCE WITH HIS HABITUAL BELIEFS, IDEAS AND PROCEDURES. | | | | | | |

**FORM 8A (Front), *Continued.***

| | | | | | | |
|---|---|---|---|---|---|---|
| **THE POWER AND HABIT OF ANALYSIS; THE HABIT OF REACHING CONCLUSIONS ON THE BASIS OF VALID EVIDENCE** | | | | | | |
| HIGHLY ANALYTICAL: HABITUALLY MAKES AN ANALYTICAL APPROACH TO HIS PROBLEMS, ASSEMBLING THE FACTS, SHOWING A CLEAR PERCEPTION OF THEIR RELATIONSHIPS AND IMPLICATIONS, AND THINKING THROUGH THE SITUATION TO WELL FOUNDED CONCLUSIONS. | | | NS | P | | NS |
| INCOMPLETE: MAKES AN INTELLIGENTLY ANALYTICAL APPROACH TO HIS PROBLEMS BUT IS MORE LIMITED IN ABILITY TO ASSEMBLE THE FACTS COMPLETELY, AND TO SEE THEIR RELATIONSHIPS OR THEIR IMPLICATIONS. | NS | NS-P | P | | AD-SS-P | E-AD-D |
| IRREGULAR: ON OCCASION SHOWS UNUSUAL ANALYTICAL POWER BUT DOES NOT DO SO HABITUALLY. | SS | E-SS | AD | E-AD-SS | M-E-F | M-SS |
| UNDEVELOPED: SHOWS SIGNS OF ANALYTICAL POWER, BUT BECAUSE OF FEARS, THE DOMINATION OF OTHERS, OR SOME OTHER INHIBITING AGENCY HAS NOT YET DEVELOPED IT TO ANY HIGH DEGREE. | AD-A | AD-MU | M-E-F | M-F | | |
| LIMITED: IS ABLE TO PURSUE REASONING PROCESSES IF AIDED BY SOME GUIDANCE AND DIRECTION. | E | M | | | | |
| PASSIVE: HIS APPROACH TO A PROBLEM IS NOT AN ANALYTICAL ONE, THOUGH HE MAY BE ABLE TO APPRECIATE A TRAIN OF REASONING OR TO FOLLOW ONE LAID OUT BY SOME ONE ELSE. | M | | | | | |
| UNREASONING: SEEMS UNABLE TO ANALYZE EVEN A FAIRLY SIMPLE SITUATION, TENDING RATHER TO RELY ON MEMORY AS A SUBSTITUTE FOR LOGIC. ACCEPTS STATEMENTS AND RESULTS WITHOUT ATTEMPTING TO REASON ABOUT THEM. | | | | | | |
| **SOCIAL CONCERN** | | | | | | |
| GENERALLY CONCERNED: SHOWS AN ALTRUISTIC AND GENERAL SOCIAL CONCERN AND INTERPRETS THIS IN ACTION TO THE EXTENT OF HIS ABILITIES AND OPPORTUNITIES. | | | | | | |
| SELECTIVELY CONCERNED: SHOWS CONCERN BY ATTITUDE AND ACTION ABOUT CERTAIN SOCIAL CONDITIONS BUT SEEMS UNABLE TO APPRECIATE THE IMPORTANCE OF OTHER SUCH PROBLEMS. | | NS | AD | E-P | P | E-NS-AD |
| PERSONAL: IS NOT STRONGLY CONCERNED ABOUT THE WELFARE OF OTHERS AND RESPONDS TO SOCIAL PROBLEMS ONLY WHEN HE RECOGNIZES SOME INTIMATE PERSONAL RELATIONSHIP TO THE PROBLEM OR GROUP IN QUESTION. | SS-AD | SS-P-AD-NS | E-P | M-SS-AD | E-M-SS-AD | M-SS-AD |
| INACTIVE: SEEMS AWARE OF SOCIAL PROBLEMS, AND MAY PROFESS CONCERN ABOUT THEM, BUT DOES NOTHING. | E-NS-M | E-M | M-F-NS | F | F | |
| UNCONCERNED: DOES NOT SHOW ANY GENUINE CONCERN FOR THE COMMON GOOD. | A | MU | | | | |
| **EMOTIONAL RESPONSIVENESS ~~AND CONTROL~~** | | | | | | |
| TO IDEAS: IS EMOTIONALLY STIRRED BY BECOMING AWARE OF CHALLENGING IDEAS. | | NS-SS | NS | AD | SS-AD | NS-SS |
| TO DIFFICULTY: RESPONDS EMOTIONALLY TO A SITUATION OR PROBLEM CHALLENGING TO HIM BECAUSE OF THE POSSIBILITY OF OVERCOMING DIFFICULTIES. | E-AD | P | P | P-AD | P-E | AD |
| TO IDEALS: RESPONDS EMOTIONALLY TO WHAT IS CHARACTERIZED PRIMARILY BY ITS PERSONAL OR SOCIAL IDEALISM. | | | | | | AD |
| TO BEAUTY: RESPONDS EMOTIONALLY TO BEAUTY AS FOUND IN NATURE AND THE ARTS. | | | | | | D |
| TO ORDER: RESPONDS EMOTIONALLY TO PERFECTION OF FUNCTIONING AS IT IS SEEN IN ORGANIZATION, MECHANICAL OPERATION OR LOGICAL COMPLETENESS. | | NS | | AD | | |

NOTE: ANY ENTRY IN RED INK IS A SECOND JUDGMENT MADE LATER IN THE YEAR.

**FORM 8A (Front), *Continued.***

# KEY TO OBSERVERS MAKING THE DESCRIPTIONS

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED: IN THE SPACES BELOW ENTER THE TEACHERS' INITIALS.

A—ARTS AD—ADVISOR D—DRAMATICS E—ENGLISH F—FRENCH P—PHYSICAL TRAINING H.R.—HOME ROOM TEACHER
G—GERMAN L—LATIN M—MATHEMATICS MU—MUSIC N.S—NATURAL SCIENCE S.S.—SOCIAL SCIENCES

| 1949-1950 | 1950-1951 | 1951-1952 | 1952-1953 | 1953-1954 | 1954-1955 |
|---|---|---|---|---|---|
| E = ES<br>M = LJ<br>NS = JCM<br>SS = JD<br>A = LN<br>AD = RW | E = ES<br>M = GH<br>NS = JCM<br>SS = JD<br>MU = HV<br>P = GW<br>AD = RW | E = HAA<br>M = GH<br>NS = ODF<br>F = CW<br>P = GW<br>AD = RW | E = HAA<br>M = WS<br>SS = HCH<br>F = GB<br>P = LWI<br>AD = LCS | E = GC<br>M = WS<br>SS = HCH<br>F = GB<br>P = LWI<br>AD = LCS | E = RT<br>M = ERB<br>NS = CH<br>SS = REK<br>D = SV<br>AD = LCS |

| SERIOUS PURPOSE | TYPE | GRADE 7 | GRADE 8 | GRADE 9 | GRADE 10 | GRADE 11 | GRADE 12 |
|---|---|---|---|---|---|---|---|
| PURPOSEFUL: HAS DEFINITE PURPOSE AND PLANS AND CARRIES THROUGH TO THE BEST OF HIS ABILITY UNDERTAKINGS CONSISTENT WITH THIS PURPOSE. | 1 | | | | | SS | SS |
| LIMITED: MAKES PLANS AND SHOWS DETERMINATION IN ATTACKING SHORT-TIME PROJECTS THAT INTEREST HIM, BUT HAS NOT YET THOUGHT OUT GOALS FOR HIMSELF | 2 | E | SS | E | E-SS-P | E-P-AD | E-D-NS |
| POTENTIAL: TAKES THINGS AS THEY COME, MEETING SITUATIONS SOMEWHAT ON THE SPUR OF THE MOMENT, YET MAY BE CAPABLE OF SERIOUS PURPOSE IF ONCE AROUSED. | 3 | SS-NS-AD | E-NS-AD | AD-P | AD-F | F-M | M-AD |
| UNRELIABLE: MAKES PLANS THAT ARE FAIRLY DEFINITE, BUT CANNOT BE COUNTED ON FOR THE DETERMINATION TO CARRY THEM THROUGH. | 4 | M-A | M-MU-P | M-NS-F | M | | |
| VAGUE: IS LIKELY TO DRIFT WITHOUT THE DECISION AND PERSISTENCE THAT WILL ENABLE HIM TO CARRY OUT HIS VAGUELY CONCEIVED PLANS. | 5 | | | | | | |
| **SOCIAL ADJUSTABILITY** | | | | | | | |
| SECURE: APPEARS TO FEEL SECURE IN HIS SOCIAL RELATIONSHIPS AND IS ACCEPTED BY THE GROUPS OF WHICH HE IS A PART. | 1 | | SS | E-P | E-SS-P | E-SS-P | E-SS-D-AD |
| UNCERTAIN: APPEARS TO HAVE SOME ANXIETY ABOUT HIS SOCIAL RELATIONSHIPS ALTHOUGH HE IS ACCEPTED BY THE GROUPS OF WHICH HE IS A PART. | 2 | E-SS-AD | E-NS-P-AD | NS-AD | M-F-AD | M-AD | M-NS |
| NEUTRAL: SHOWS THE DESIRE TO HAVE AN ESTABLISHED PLACE IN THE GROUP, BUT IS, IN GENERAL, TREATED WITH INDIFFERENCE. | 3 | M-NS-A | M-MU | M-F | | F | |
| WITHDRAWN: WITHDRAWS FROM OTHERS TO AN EXTENT THAT PREVENTS HIS BEING A FULLY ACCEPTED MEMBER OF HIS GROUPS. | 4 | | | | | | |
| NOT ACCEPTED: HAS CHARACTERISTICS OF PERSON OR BEHAVIOR THAT PREVENT HIS BEING AN ACCEPTED MEMBER OF HIS GROUP. | 5 | | | | | | |
| **WORK HABITS** | | | | | | | |
| HIGHLY EFFECTIVE. A PUPIL HAVING HIGHLY EFFECTIVE WORK HABITS WOULD BE LIKELY TO REACH THE MAXIMUM ACCOMPLISHMENT FOR ONE OF HIS ABILITY. | 1 | | | | SS | P | SS |
| ADEQUATE: A PUPIL HAVING ADEQUATE WORK HABITS WOULD ACCOMPLISH ALL THAT WOULD COMMONLY BE EXPECTED OF ONE OF HIS ABILITY. | 2 | E | E-SS-P | E-P-AD | E-P-AD | E-SS-AD | E-D-AD |
| PROMISING; WHILE HIS HABITS ARE NOT YET ADEQUATE THEY SHOW PROMISE OF BECOMING SO. | 3 | SS-AD | NS-MU-AD | M-NS-F | F | M-F | M-NS |
| LIMITED: HAS WORK HABITS THAT ARE ADEQUATE ONLY FOR SIMPLE SITUATIONS, OR ARE LIMITED BY THE LACK OF DEVELOPMENT OF SOME ELEMENTS THAT MAKE FOR EFFICIENCY. | 4 | NS | M | | M | | |
| INEFFECTIVE: HAS NOT DEVELOPED HIS WORK HABITS TO THE POINT WHERE HE CAN WORK EFFICIENTLY. | 5 | M-A | | | | | |

**FORM 8B (Back).**

A MARKEDLY HIGH (H) OR LOW (L) DEGREE OF THE FOLLOWING BEHAVIOR CHARACTERISTICS IS SHOWN BY RECORDINGS IN THE APPROPRIATE SPACES. NO IMPLICATION IS ASSUMED AS TO DESIRABILITY OR UNDESIRABILITY FOR THE PARTICULAR INDIVIDUAL. ANY QUALIFICATIONS OR FURTHER COMMENT SHOULD APPEAR UNDER "GENERAL COMMENT."

| | | | GRADE 7 | GRADE 8 | GRADE 9 | GRADE 10 | GRADE 11 | GRADE 12 |
|---|---|---|---|---|---|---|---|---|
| PHYSICAL ENERGY | BEHAVIOR IN RELATION TO VIGOR AND ENDURANCE. | H | [illegible] | P | P-NS | P | P-AD | NS-AD |
| | | L | | | | | | |
| ASSURANCE | ABILITY TO MEET SITUATIONS AND PEOPLE EASILY. | H | | | | AD-SS | AD | AD-SS |
| | | L | | | | | | |
| SELF RELIANCE | THE HABIT OF DEPENDING ON ONE'S SELF RATHER THAN ON OTHERS. | H | | | | P | E | E-NS |
| | | L | | | | | | |
| EMOTIONAL CONTROL | ABILITY TO RETAIN POISE AND SELF CONTROL. | H | | SS | E-NS | E-SS-AD | E-SS-P | E-D-SS-AD |
| | | L | | | | | | |
| | | H | | | | | | |
| | | L | | | | | | |

USE H (HIGH), U (USUAL FOR AGE), OR L (LOW) TO INDICATE THE SUCCESS THIS STUDENT HAS HAD IN DEALING WITH

| | | | | | | |
|---|---|---|---|---|---|---|
| ABSTRACT IDEAS AND SYMBOLS | L | L | U | U | U | U |
| PEOPLE | U | U | H | U | H | H |
| PLANNING AND MANAGEMENT | L | U | U | U | U | U |
| THINGS AND MANIPULATION | U | U | U | H | H | H |

GENERAL COMMENT: THE FOLLOWING SPACE IS TO BE USED FOR SPECIFIC INSTANCES OF BEHAVIOR AND FOR ADDITIONAL INFORMATION THAT AMPLIFIES AND SYNTHESIZES THE DESCRIPTION OF THE STUDENT.

ROBERT HAS AN UNUSUALLY PLEASING PERSONALITY AND IS VERY WELL ADJUSTED SOCIALLY. HE IS STRONG AND VIGOROUS AND HAS SPLENDID SELF-CONTROL. HE IS INCLINED TO BE PRACTICAL RATHER THAN IDEALISTIC. HE HAS SHOWN LITTLE EVIDENCE OF ESTHETIC APPRECIATION OR INTEREST IN THE ARTS. WHEN HE IS INTERESTED IN ANY PROJECT HE WORKS WITH DEFINITE PURPOSE AND GREAT TENACITY, BUT HE IS RATHER INDIFFERENT AND CARELESS IF THE SUBJECT IS OUTSIDE HIS INTERESTS. ALTHOUGH HE HAS SOME LIMITATIONS IN HABITS OF WORK AND SERIOUSNESS OF PURPOSE, HE POSSESSES CONSIDERABLE SELF-RELIANCE AND FORCE OF CHARACTER, AND IS WELL LIKED BY HIS TEACHERS AND CLASSMATES.

**FORM 8B (Back), Continued.**

## THE CRITICAL INCIDENT TECHNIQUE OF STUDYING BEHAVIOR AND PERSONALITY

One limitation to the success of anecdotal records is that in many instances teachers attempt to record too many behavior incidents, many of which are trivial and lacking in value for the understanding of personality. Hence the program may get bogged down in a morass of unimportant and confusing detail.

In order to make the description of behavior more selective, more significant, and more readily manageable, John Flanagan has for a good many years advocated the use of a "critical incident" technique in which the recording is confined to those times which the observer believes to be particularly revealing (25). Flanagan has experimented with this technique in military and civilian situations.

Out of the framework of the critical incident technique, Flanagan has recently made available a thorough *Personal and Social Development Program* for schools, with emphasis on the elementary school level. The basic materials in this program are a *Performance Record,* a *Teacher's Guide,* and an *Administrator's Manual.* The particular strengths of this plan are (1) that reports on the pupil are objective in that they are based upon what he does or does not do; (2) that the pupil's behaviors are readily classified and recorded by means of a key letter and two or three descriptive words; and (3) that the plan includes a definite procedure for summarizing, interpreting, and reviewing the behavioral observations.

This new program for the assessment and development of personality and character looks promising, and it should interest many school administrators, teachers, and guidance workers, although at this writing it is not yet possible to say how well it will work out when applied in a variety of school environments.

The *Performance Record* for the *Personal and Social Development Program* is shown in Form 9.[5]

## AUTOBIOGRAPHIES, BIOGRAPHICAL INVENTORIES, AND SOCIOMETRIC DEVICES

In addition to rating scales, anecdotal records, and behavior descriptions, a number of other informal techniques are being used by schools in collecting information about the personal qualities of individuals.

[5] Used with permission of Dr. Flanagan and Science Research Associates.

### AUTOBIOGRAPHIES AND BIOGRAPHICAL INVENTORIES

The autobiography is a technique which is readily usable by classroom teachers. It may serve the dual purpose of furnishing a basis for theme writing in English classes and of providing personal information for use by the counselor. Moreover, if the autobiography is analyzed by the school psychologist, it may provide leads to pupils who are in need of special help with problems of adjustment or who have basic feelings of insecurity. Probably because of its informal, unstructured, and nonscientific character, there has been little research on the autobiography. Shaffer (56) found that the autobiography was used by only one-fourth of the counselors in a large city school system and that only one-half of them had ever seen an autobiography. He also found from ratings obtained from 68 of these counselors that the autobiography was placed next to last in a list of ten counseling techniques. The rank order was as follows: (1) interview, (2) achievement tests, (3) intelligence tests, (4) anecdotal records, (5) oral teacher reports, (6) grades, (7) written teacher reports, (8) personality tests, (9) autobiographies, and (10) questionnaires. He found, nevertheless, in a study of 500 autobiographies that the technique was useful in gaining understanding of high school pupils. A high percentage of the students wrote autobiographies. Most statements in the autobiographies were honest and accurate. Rapport was not necessary for group administration. The autobiographies identified unadjusted students and added to the understanding of visiting teachers.

A structured or semistructured instrument which serves a purpose somewhat similar to the autobiography is the biographical inventory, or personal history record. Numerous items pertaining to the history, activities, and experiences of the individual are listed in the biographical inventory. The pupil is required to check those items which apply to him or to indicate whether he frequently, sometimes, or rarely engages in the activities listed.

In recent years, some experimental work has been done with the biographical inventory in connection with psychological services related to military service and to industry and to a lesser extent in school situations. Malloy (39) constructed a Life Experience Inventory and studied its value for the prediction of first-semester college marks. The inventory sampled the areas of school experience, self-appraisal, family relationships, and choice and type of friends. It was found that the inventory significantly increased the prediction of college marks over and above that which was obtained from the L-score on the American Council on Education Psycho-

**S R A** Program for Elementary Schools

# PERFORMANCE RECORD for the PERSONAL AND SOCIAL DEVELOPMENT PROGRAM

Name__________ Age____ Grade____

## MEMORANDA ON PROGRESS

PERIOD I: From________ to________

Summary of Incidents

| Headings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Number of BLUE entries | | | | | | | | |
| Number of RED entries | | | | | | | | |

SUMMARY NOTES ON...

Child's strong points:________

Needs for improvement; sources of problems:________

Actions taken by child, parent, and teacher:________

Results; actions found effective and ineffective:________

PERIOD II: From________ to________

Summary of Incidents

| Headings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Number of BLUE entries | | | | | | | | |
| Number of RED entries | | | | | | | | |

SUMMARY NOTES ON...

Child's strong points:________

Needs for improvement; sources of problems:________

Actions taken by child, parent, and teacher:________

Results; actions found effective and ineffective:________



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FORM 9(a).

BEHAVIORS TO BE ENCOURAGED

## 1. PERSONAL ADJUSTMENT

A. Reacted in a calm manner to threatening criticism, suggestion, or punishment
B. Handled teasing, attacks of others in a humorous or unruffled manner
C. Reacted to failure in a constructive manner
D. Adjusted well to difficult situation

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 2. RESPONSIBILITY AND EFFORT

A. Helped to clean up, arrange, or make special preparation
B. Did things promptly
C. Got things done in spite of interference from others
D. Carried out assigned task without reminder
E. Did unusually thorough job on assigned task or elected responsibility
F. Notified others of special plans
G. Made immediate efforts to improve behavior, work, or health habits as suggested

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 3. CREATIVITY AND INITIATIVE

A. Made up poem, song, or carried out some original or creative project
B. Worked out satisfactory solution when faced by unfamiliar or unexpected situation
C. Took over in response to special needs
D. Attempted to learn special skills on own initiative
E. Volunteered to do some task
F. Asked to make up work
G. Sought additional work

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 4. INTEGRITY

A. Returned money or articles found
B. Admitted guilt in some matter
C. Made amends for own errors
D. Called attention to errors, etc., that would have been to his advantage to ignore

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

SOCIAL

## 5. SOCIAL ADJUSTMENT

A. Shared or took turns with someone
B. Helped other children with school work or other activity
C. Gave or loaned money or articles to others
D. Gave up something to help another

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 6. SENSITIVITY TO OTHERS

A. Saw that others were not left out
B. Cheered up, complimented, or encouraged others
C. Was kind to someone with handicap or special problem
D. Tactfully provided something for needy child
E. Did something for person not feeling well
F. Corrected or made suggestions to another in tactful manner
G. Interceded for or stuck up for another

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 7. GROUP ORIENTATION

A. Offered to contribute to group activity
B. Provided something for benefit of group
C. Exhibited good sportsmanship in game
D. Communicated suggestion to the class
E. Showed independent thinking in the face of opposition for group benefit

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

## 8. ADAPTABILITY TO RULES AND CONVENTIONS

A. Followed rules even when unpopular to do so
B. Exhibited respect and courtesy for others in language or actions
C. Displayed good taste and manners in difficult situation
D. Complied readily with conditions of punishment

| DATE | ITEM | WHAT HAPPENED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

On the regular form, the last four lines of each of the above sections for recording are printed in blue.

**FORM 9(b).**

## TRAITS

### BEHAVIORS NEEDING IMPROVEMENT

DATE ITEM WHAT HAPPENED

#### PERSONAL ADJUSTMENT

a. Reacted to suggestion, punishment, or teasing with:
   a-1. sulking, hostile remarks, tantrum, crying, door slamming, etc.
   a-2. running away from situation, hiding face, etc.
b. Cried, complained, or was upset over small matter
c. Had difficulty adjusting to situation
d. Failed to participate with group, withdrew
e. Feigned sickness or gave excuse to avoid distasteful situation

#### RESPONSIBILITY AND EFFORT

a. Attempted to avoid doing his share of work
b. Did not carry through with assigned task
c. Dawdled or was late in doing tasks
d. Failed to do work or made little effort
e. Lost, wasted, or failed to care for supplies, money, etc.
f. Failed to notify others of plans
g. Gave up without trying
h. Made no effort to improve behavior, work, or health habits as suggested

#### CREATIVITY AND INITIATIVE

a. Was unable to develop even very simple idea when presented to him
b. Was unable to work out plan of action when faced by unexpected or unfamiliar situation
c. Had to be told to undertake something that obviously needed doing

#### INTEGRITY

a. Cheated in class or game
b. Changed grades, altered records, etc.
c. Denied mistake or wrongdoing
d. Blamed others for own mistakes
e. Told a falsehood
f. Kept lost money or articles when found
g. Took property of others

## TRAITS

#### SOCIAL ADJUSTMENT

a. Refused to take turns or share with someone
b. Struck, pushed, spit on, threw things at or interfered with another individual
c. Destroyed or mutilated the personal property of another individual
d. Played tricks on, teased others
e. Tattled on others

#### SENSITIVITY TO OTHERS

a. Left another child out of activity
b. Referred to another's race, religion, or nationality in a disparaging manner
c. Called another child names
d. Made fun of or teased another about handicap
e. Laughed at the mistakes of others
f. Used sarcasm and disparaging remarks in making criticisms and suggestions to or about others

#### GROUP ORIENTATION

a. Refused to participate in group activity
b. Talked out of turn, talked excessively, or answered for others
c. Continually insisted on being first
d. Disrupted and annoyed the group
e. Exhibited poor sportsmanship in game
f. Influenced others to ill advantage

#### ADAPTABILITY TO RULES AND CONVENTIONS

a. Failed to conform to general rules of school or classroom
b. Destroyed or mutilated public property
c. Failed to observe the rules of cleanliness, good health
d. Showed poor taste in language or action
e. Disobeyed orders

On the regular form, the last four lines of each of the above sections for recording are printed in red.

FORM 9(c).

## Additional notes on PERFORMANCE RECORD incidents

| DATE | HEADING AND ITEM | WHAT HAPPENED | DATE | HEADING AND ITEM | WHAT HAPPENED |
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## Suggestions for planning improvement or remedial action

**(ideas, analysis, interpretation)**

**FORM 9(d).**

logical Examination and the University of Nebraska English Placement Test.

Similarly, in some recent exploratory work at the Educational Records Bureau, a Personal History Record, devised by Lester Luntz, was filled out by pupils in several secondary schools. With English marks as a criterion, a set of weights for the different items was worked out on the basis of the responses of the boys in one high school. In a validation study on boys in another high school, it was found that the correlation of the Personal History Record scores with English marks was approximately .45 as compared with a correlation of .55 between total scores on the American Council Psychological Examination and English marks. The multiple correlation of the two measures with marks in English was .65 (*44*). This study and the preceding one suggest that the biographical inventory technique may add a noncognitive measure which will be a useful supplement to a scholastic aptitude test in the prediction of student success, but at present there is not enough research evidence to warrant a definite statement on this point.

### SOCIOMETRIC DEVICES

Since the appearance in 1934 of Moreno's book, *Who Shall Survive,* which was revised in 1953 (*43*), there has developed a set of techniques known as sociometry for assessing the degree of acceptance of an individual by his peers. The research bibliography in this area is now fairly extensive, and new studies are constantly being added. Among those who have been quite active in investigating the values of sociometric techniques are J. Wayne Wrightstone and G. G. Thompson.

The application of Moreno's original technique to the school situation involves asking each pupil to indicate the other pupils in his class or group whom he regards as close friends and likes to have in the group and those toward whom he does not feel friendly and would prefer not to have in his group. Questions such as the following are sometimes used: In the seating arrangement we are working out for the class, what two pupils would you like to sit next to you? What two pupils would you not like to sit next to you? Which classmate

would you want to help you with your school work? What pupils of the same sex would you invite to accompany you on a hike? Which boys or girls of your class would you like to play with during recess? What pupil of the opposite sex would you invite to a party? The purpose is to measure the extent of acceptance or rejection among the individuals in the group. Some teachers use only the positive items which indicate degree of acceptance, since they feel that it is undesirable to direct the attention of pupils toward individuals who are not socially accepted, even though the responses are always obtained in written form and no information concerning pupils generally accepted or generally rejected is given to the class.

When the summaries of the responses of all pupils to the questions used are available, a graphic representation of acceptance and rejection among the individuals of the group may be prepared in the form of a "sociogram." A recently published form and directions for collecting and recording sociometric information have been made available in the Bonney-Fessenden Sociograph (8), which is included in the annotated list of instruments near the end of the chapter.

A second and somewhat different approach to the obtaining of sociometric data is through what has been called the "guess who technique." Various kinds of presumably desirable or undesirable behavior are briefly described, and each pupil is asked to name a pupil in his group who represents a particular kind of behavior. A variation of this technique is to ask the pupils to nominate other pupils in their group for roles in class plays.

It has been generally assumed by those using sociometric procedures that the individuals who are rated the highest in acceptance by their peers are the best adjusted, although there is not clear-cut research evidence on this point. In a study of the relationship between the sociometric rating and the recorded actual behavior of second-grade children, Bonney (7) found that pupils with high peer status were more involved in verbal behavior, tended to possess positive traits, and showed greater personality balance. Brieland (11) found in an investigation of a variation of the "guess who technique" for use in studying the adjustment of children that there was more agreement between pupils and teachers on undesirable behavior than on desirable behavior.

In a study reported by Wrightstone (74) the results of two sociometric techniques and the California Test of Personality were correlated against ratings of personal qualities by teachers and supervisors. One of the sociometric techniques involved nomination of classmates as friends; the second involved nomination of classmates as naturally suited for roles in class plays. In the analysis of the sociometric devices, it was found that rejection, or the tendency not to nominate classmates as friends, correlated rather highly with teacher observation, .72. However, the correlations between the California Test of Personality and teachers' ratings were approximately as high, .66 and .74. Fox and Segel (27) analyzed the results of several research studies bearing on the question of adjustment and concluded that the Moreno choice type of social rating had little or no relation to social adjustment.

Instead of the Moreno type of approach, or the partial-rank-order sociometric approach, as it is sometimes called, it is possible to use a paired-comparison procedure in which each pupil is paired with each of the other pupils and the subject is asked to indicate the one in each pair he likes the better. Thus far, there has been little use of the paired-comparison technique, but perhaps more attention should be given to it, since in one study, by Witryol and Thompson (72), it was found that social acceptability scores obtained through the use of the paired-comparison technique were somewhat more stable than those obtained by means of the partial-rank-order procedure (median stability coefficient of .96 as compared with .75).

It has been pointed out by some workers in the field of sociometry that the use of a rating scale for obtaining social acceptability scores would be simpler administratively and would lend itself more readily to quantitative expression of the scores for purposes of interpretation and research than the results of more elaborate techniques. Thompson and Powell (64) developed a rating scale and compared it with the partial-rank-order approach. They found advantages in the rating scale and concluded that it was the better research technique. In three studies at the junior high school level, Forlano and Wrightstone (26) found that the *Revised Ohio Social Acceptance Scale, Advanced Series,* a peer-rating instrument suitable for group administration, showed "some promise and practicality in assessing the quality of social acceptability in a class." This scale requires each pupil to rate each classmate on a five-point scale as follows: (1) very best friends, (2) good friends, (3) not friends but okay, (4) you don't know them, (5) you know them but not friends and not okay to you.

In another study, Justman and Wrightstone (36) compared methods of measuring pupil status in the classroom. One of these was a modified form of the Ohio Social Acceptance Scale. A second was a variant of the "guess who test" which involved the casting of classmates as characters to play given roles in class plays. The third was a modification of Moreno's original approach in which each pupil was asked to select the three pupils liked best and the three liked least. The intercorrelations among these three methods were found to be relatively

high, .535 to .958. It was concluded that the modified Moreno approach and the Ohio Social Acceptance Scale could be used interchangeably whereas somewhat different aspects of status were measured by the casting-characters approach.

As has been emphasized by Ohlsen (46), teachers need specific suggestions in preparing sociometric measures and using the results. He illustrated the use of the sociogram. Dunlap (23) described a method simpler than the sociogram for recording sociometric data which was devised after six years of experimentation. This is essentially a cumulative record with spaces for recording sociometric data in code once a month for ten months. The data for 40 pupils can be kept on a chart 20 inches square. While it was not regarded as a replacement of the sociogram, Dunlap pointed out that this kind of cumulative record was a useful adjunct to it because of its effectiveness in picturing the individual through time and in helping to spot the individuals who were isolates from the group over a long period. It would seem that this kind of cumulative record ought to lend greater validity to sociometric data just as a cumulative record of test scores may be regarded with greater confidence than a score resulting from one administration of a single test.

## ANNOTATED LIST OF RATING SCALES, BEHAVIOR DESCRIPTIONS, ANECDOTAL RECORDS, AND SOCIOMETRIC DEVICES

*Behavior Description* form. Reports and Records Committee of Progressive Education Association, 1938. Formerly published by Progressive Education Association which is now out of existence. The form is now in the public domain (III).

A plan, resulting from intensive work over an extended period of time by the Reports and Records Committee, designed to secure and record in permanent form judgments of teachers concerning traits believed to be important. Consists of a "behavior description" filing and transfer card in the form of a folder, a sheet to be used by the teacher in making a report on his pupils, and a "trait study" manual containing complete directions. The traits included are: responsibility-dependability, creativeness and imagination, influence, inquiring mind, openmindedness, power and habit of analysis, social concern, emotional responsiveness, serious purpose, social adaptability, work habits, physical energy, assurance, self-reliance, and emotional control. A series of descriptive statements is given in connection with each trait and the teacher indicates the one which describes the pupil best. Space is provided on the pupil's card for recording judgments of all his teachers from Grade VII through Grade XII. *Reference:* Manual for Behavior Description, Reports and Records Committee of the Commission on the Relation of School and College of Progressive Education Association (Eugene R. Smith, chmn.). Form may be reprinted or adapted for local use without permission.

Bonney, Merl E. and Fessenden, Seth A. *Bonney-Fessenden Sociograph.* Los Angeles: California Test Bureau, 1955. Complete set of materials, including directions for administering, recording, and interpreting Sociograph for a class of 40 (one manila folder, one manual, and five sheets of eight perforated answer slips), 50 cents; additional folders (the Sociograph), 15 cents each; additional answer slips, 15 cents each; additional manuals, 25 cents; specimen set, 50 cents (II).

An instrument planned to simplify and organize the collection and interpretation of sociometric data. It consists of a specially printed folder containing an ingenious graph arrangement for the teacher's use in recording data and a detailed manual of instructions. Answer sheets are also available for use in collecting responses from the pupils, although the use of these is not required. Pupils indicate names of their classmates whom they would like to have work on a committee with them and also those they would prefer not to have on a committee if they wish. Spaces and directions are provided for summary and interpretation of data. It is implied in manual that reliability or stability of the group status of individual pupils derived from sociometric data is .90 for a time interval of one week or less, .76 for an interval of two to nine weeks, and .65 for an interval of three months to a year (8).

Doll, Edgar A. *The Vineland Social Maturity Scale.* Minneapolis: Educational Test Bureau, 1935–47. Record blanks, $1.65 per 25; manual, $1.00; specimen set, $1.00 III.

A social maturity scale standardized for normal subjects from birth to 30 years. A behavior description form rather than a rating scale. One form. Time required for rating an individual, 20–30 minutes. Judgments are recorded by the examiner after interviewing in detail either someone well acquainted with the subject, or the subject himself. The author warns that at least as much care should be used in mastering the technique as is given to acquiring technique of the Binet scale. The present Vineland scale consists of 117 items arranged in order of difficulty and also grouped by year values. Examples: Year 0–1, balances head, grasps objects within reach; Year 7–8, tells time to quarter hour, disavows literal Santa Claus; Year 25, systematizes own work, shares community responsibility. Yields a raw score, an age score, and an SQ, which is the subject's age score divided by his life age. A plus score is given for habitual behavior, a minus for absence of behavior, and a ± for occasional behavior. The scale has been used as a developmental measure

for normal subjects and also for various types of socially handicapped subjects. *Reference:* Doll (21, 22); Watson (70).

*Fels Parent Behavior Rating Scales.* Yellow Springs, Ohio: The Fels Research Institute, 1937–49. $1.00 per set of 30 scales; manual, $1.50; specimen set, $1.00 (II).

A device for use in assessing parent behavior toward the child, as well as various aspects of the home environment. Thirty linear or graphic rating scales, each of which is supplemented by descriptions of points along the scales, are available. The instrument requires two home visits and interviews of about two hours each. Sheets with space to rate ten children on each one facilitate comparisons from child to child. Manual reports reliability data indicating that two sets of ratings by a rater without much experience correlated from .53 to .85. The two sets of ratings showed correlations above .70 on about half the scales. After some years of experience, the same rater made two sets of ratings with an interval of 6 months between them, and the ratings correlated from .62 to .90 with a median of about .80. Ratings of two different raters correlated .26 to .88 on the 30 scales, with 22 of the 30 correlations exceeding .65. Norms for the raw scores are not available. In the hands of an experienced, skillful interviewer, these scales should provide a useful supplement to other counseling devices and procedures (3).

Flanagan, John C. *Personal and Social Development Program.* Chicago: Science Research Associates, 1956. Classroom Booklet of 40 *Performance Record* incident sheets, $8.50 each; extra 20 incident sheets, $3.50 per 20; *Teacher's Guide,* $1.50 each; *Manual for School Administration and Supervisors,* 50 cents each. (III).

A carefully worked out and thoroughly explained program of personal development of pupils for use by classroom teachers. Consists of (1) a *Performance Record* on which behaviors which "need improvement" and behaviors "to be encouraged" are listed under 8 major areas; (2) a detailed *Teacher's Guide* which explains the materials, principles, and procedures of the program; and (3) a *Manual for School Administrators and Supervisors* setting forth the philosophy of the program and containing ideas for introducing the program, making it meaningful to parents, and integrating it into the curriculum. Intended mainly for the elementary school level.

Haggerty, M. E., Olson, W. C., and Wickman, E. K. *Haggerty-Olson-Wickman Behavior Rating Schedules.* Yonkers, N.Y.: World Book Company, 1930. $2.20 per 35; specimen set, 35 cents (II).

Designed for the study of behavior problems and problem tendencies in children. Two schedules, A and B. A is for behavior problems—the rater checks each item to indicate the relative frequency of occurrence of the behavior in the child being rated. Schedule B is a graphic rating scale for intellectual, physical, social, and emotional traits. One form only for kindergarten-Grade 12. No time limit, as it is a rating device. Reliability of Schedule B has been reported in various studies. Correlation coefficients vary from .56 to .92 in nursery, elementary, and high school populations. Correlation between Schedule A and Schedule B, .62. A more reliable measure can be obtained by averaging the ratings of several judges. *Reference:* Olson (47).

Marston, L. R. *Introversion-Extroversion in Young Children.* Chicago: C. H. Stoelting Company, 1925. $3.50 per 50; specimen set, $1.00 (II).

Devised for the rating of introversion-extroversion traits of children between 2 and 6 years of age. Since this is a rating device, there is no time limit. One form. Powers (49) had six staff members of the Francis E. Willard School rate girls in the school and compared the results. She found that the scale had practical value, since it yielded ratings which indicated the course of remedial treatment. *Reference:* Marston (42).

Wittenborn, J. Richard. *Wittenborn Psychiatric Rating Scales.* New York: The Psychological Corporation, 1955. $2.75 per 25; specimen set, 35 cents (II).

Provides for ratings on 52 symptoms which are combined to yield nine cluster scores. Psychiatric terminology used in defining scores. Not for use by teacher-counselors but may be used by school psychologists or physicians in cases where severe emotional or mental disorder is suspected. Norms based on 1000 cases admitted to a mental hospital. One form which can be filled out by an experienced rater in about 15 minutes.

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CHAPTER IX

# *Planning and Administering a Testing Program for Guidance Purposes*

THE NEWER CONCEPT OF A PROGRAM OF INDIVIDUALIZED guidance as contrasted with the older practice of mass education is concentrating the attention of administrators, teachers, and counselors at all levels of the school on the need for a great variety of information about each individual pupil. In their efforts to obtain records of ability and achievement that have a high degree of objectivity and reliability, an increasing number of schools are introducing programs of measurement. Consequently many questions are being asked concerning how a test program should be planned and what kinds of tests should be used.

Tests for a school guidance program may be divided into two broad categories: those to be used systematically and those for special uses. The tests to be used systematically should be given at regular intervals in a program which is carefully planned in every detail and in which every normal pupil in the school participates fully. The tests for special uses should supplement the regular program and should be administered to individuals and groups as needs arise.

A systematic testing program ordinarily includes tests of four general types: (1) group intelligence tests or tests of academic aptitude; (2) tests of reading ability; (3) tests of achievement in the subjects commonly included in the academic curriculum or, if the school is one in which subject-matter lines have been broken down, tests in the broad fields of the curriculum; and (4) measures of interests. There are so many tests of each type and so many new tests are produced each year that most schools, unless they happen to employ specialists in testing, find the choosing from among the available instruments a baffling problem. The following are among the most important guiding principles of test selection.

1. *First secure a statement of the school's objectives from the faculty of the school itself.* Then choose (or construct) tests that measure the progress of the pupils toward these objectives, or at least toward some of them, for it is improbable that any test or combination of tests will meet all the purposes that a school believes to be important. Try to obtain evidence concerning the degree to which the tests under consideration predict or measure the attainment of the objectives listed by the school. This is an important aspect of test validity.
2. Become familiar with the *Technical Recommendations for Psychological Tests and Diagnostic Techniques*, developed by a joint committee of the American Psychological Association, American Educational Research Association, and National Council on Measurements Used in Education (4) and the *Technical Recommendations for Achievement Tests* prepared by the Committee on Test Standards of the American Educational Research Association and the Committee on Test Standards of the National Council on Measurements Used in Education (5). Also, refer to reviews of tests in Buros' *Mental Measurements Yearbooks* (*1*, *2*). Use these as general guides in the selection of tests.
3. *Choose tests that have been shown to be highly reliable.* A reliable test is one that measures consistently; that is, if the test is repeated or given in alternate forms, the results obtained are in close agreement. Try to find studies in which the reliabilities of the tests have been reported from several sources. Remember that split-half reliability coefficients are likely to be spuriously high if they involve

a speed factor. Give preference to reliability coefficients which result from the administration of different forms of a test and which are based on cases taken from a single grade level rather than from a range of grades.

4. Other things being equal, *select tests for which several comparable forms are available.* This point is important in a regular testing program in order that practice effect may be minimized. The opportunities for systematic testing are even more favorable if a new form of the test is issued each year.
5. Other things being equal, *select tests for which adequate norms are available.* It is helpful to be able to compare the achievement of a given pupil with norms of national scope as well as with the local population. Private schools and public schools in residential districts of suburban communities usually find the independent school norms prepared by the Educational Records Bureau of more value than norms for unselected public schools.
6. When a number of different achievement tests are being given to the same group of pupils, *it is helpful to select tests that are scaled on a common criterion group.* Obviously, if the raw scores are translated into derived scores that have the same meaning for all tests, comparisons of achievement in different subject fields will be greatly facilitated.
7. Other things being equal, *choose tests that can be scored objectively, rapidly, and inexpensively.* Objectivity of scoring is ordinarily a practical necessity from the standpoint both of reliability of scoring and of economy. Rapidity of scoring is highly desirable in order that the results may be used in guidance and instruction before interest has waned. Inexpensive scoring is usually essential since most budgets for testing are limited. In this connection schools should investigate the possibilities inherent in the various kinds of machine scoring now available.

A school which can afford to administer on a systematic basis only one test annually to all pupils will do well to select a group test of general academic aptitude, for a test of this kind naturally tends to be more highly correlated with academic achievement in general than tests whose functions are specialized. The present tendency among test specialists is to recommend tests that yield separate verbal and numerical scores or tests that provide comparable scores in several different mental functions in preference to tests that provide only a single total score, mental age, or IQ.

Next to an intelligence test probably the test that has the most general usefulness is a silent reading test. Reading ability plays so large a part in academic success, particularly in the verbal subjects and in vocational adaptibility, that in every guidance program the reading achievement of all pupils should be checked regularly. Moreover, many personality aberrations have their root in the failure of the child to learn to read and thus to make one of the most important of all adaptations to his social environment. A still further reason for measuring reading is that no conclusion concerning intelligence that is based on the usual group test of mental ability is really valid unless the reading ability of the pupil is known.

## STEPS IN PLANNING AND CONDUCTING A TESTING PROGRAM

The values of measurement depend to a great extent on the care with which the testing program is planned and carried out. The responsibility for the testing program should be centered on a member of the school staff who will give patient attention to the planning of the entire program each year, who will faithfully administer every detail, and who will make it his business to see that the test records of every pupil are complete, unless there are extenuating circumstances which make it impossible for the pupil to take the tests. The following rules for administering a testing program have been found useful in actual practice:

1. Select the tests carefully, preferably in coöperation with a faculty committee. If there is a state testing program in your state, consider carefully the tests recommended in connection with that program, for they are usually selected by experts in measurement and guidance. Take into account the tests recommended by an independent organization such as the Educational Records Bureau in connection with its fall and spring testing programs. The tests for those programs are chosen by a committee of administrators and teachers from member schools of the Bureau, working in coöperation with test specialists on the Bureau's staff.
2. Order the tests well in advance of the date on which they are to be used. Allow plenty of time to get all the materials in readiness before the day on which the tests are to start. Remember that if separate answer sheets are to be used and if the pupils taking a given test are to be tested in several groups at different times, the number of booklets ordered may be only as many as are needed to supply the largest group, since each booklet may be used several times. However, a few additional booklets probably should be ordered in case some of them become so badly mutilated through use that they must be discarded.
3. Plan *in detail* for the administration of the tests. Choose examiners and proctors with great care. If possible, use examiners who have had previous experience in giving the objective type of test. If inexperienced examiners must be used, they should be rehearsed beforehand. Remember that some very intelligent people are temperamentally unsuited to the exacting routine of administer-

ing a test. You may use such persons as proctors where tests are being given to larger groups, but they should not be placed in charge of the administration of a test. It is ordinarily desirable to have teachers in the lower elementary grades administer the tests to their own classes in order to maintain a feeling of confidence and security in the test situation on the part of these young children.

4. Mimeograph or otherwise duplicate an examination schedule and see that every person concerned receives a copy of it. The schedule should give the time and place of each test, indicate just where each class which is to take the test is to go, where the pupils who are not taking the test should be during that hour, what material the pupils will need when taking the test, and the name of the faculty member in charge at each examination.
5. Avoid overemphasis on the tests. Urge the teachers to have the pupils take them "in stride."
6. Give pupils who have never taken objective tests an opportunity to examine old tests of this kind. Better still, have them take a short practice test of the objective type. A set of Practice Exercises for Standard Tests and a sheet of Test Information for Students are available from the Educational Records Bureau, and a Practice Sheet for the Cooperative tests is published by the Educational Testing Service.
7. Do not distribute the tests to the examiners before the day of the examination. Have packages containing the requisite numbers of test booklets made up and ready for the examiners when the date for the tests arrives (and answer sheets if the tests are to be given with answer sheets).
8. Provide each examiner with a manual and a sample copy of the test several days before the examination and urge him to study the manual and to practice by taking the test himself. Most errors in the administration of tests are caused by the failure of the examiner to prepare sufficiently beforehand. Make sure that each teacher serving as an examiner is forewarned against giving the pupils any specific information about the content of the tests.
9. Provide each examiner and proctor with a written set of instructions outlining his duties during the examination.
10. When administering tests to large groups:
    a. Make arrangements so that there will be no interruptions or distractions during the testing period. Persons should not come into or go out of the room unless absolutely necessary.
    b. Seat the pupils in alternate chairs if possible.
    c. See that each proctor understands what is expected of him.
    d. Make announcements slowly and clearly in a voice that is loud enough to be heard throughout the room. Assume a businesslike and efficient attitude that will command attention, but do not be unnecessarily severe. Remember that some pupils become nervous when faced with an examination.
    e. Have proctors supply all pupils with test material and pencils. Announce that the pupils are not to write on the booklets nor to open them until so instructed.
    f. Have the blanks on the front of the booklets or answer sheets filled out. Be sure to announce the date, how names are to be written, and other items that may need clarification. Spend sufficient time on this step to see that the information is given correctly by the pupils. Ages and birth dates are especially important on tests of academic aptitude.
    g. Hold faithfully to the exact wording of the printed directions unless there is an excellent reason for introducing a minor variation in them. The preparation of directions for a test is one aspect of test construction and standardization. The wording of the directions has been carefully thought out by the test author. Don't improvise or introduce short cuts. If you do, you may change the test results significantly.
    h. Time the examination with extreme care, using a watch which has a second hand and which has been checked for accuracy. It is advisable to have one of the proctors check your timing to be sure that no error occurs. In many tests accurate timing is the most important single feature of the entire procedure of administering them.
    i. Move about the room occasionally to see that all pupils are working on the right part of the examination, but do not stand gazing over a pupil's shoulder until he becomes self-conscious, and do not constantly move nervously from pupil to pupil.
    j. Stop the examination immediately when the time is up and collect the booklets.
    k. If the tests are administered with separate answer sheets for scoring with the older model of the IBM Test-Scoring Machine, make sure that all pupils have made their response marks heavy, black, and glossy and have erased stray marks before the answer sheets are turned in. One procedure is to allow a few moments for the darkening of the responses and the erasing of stray dots and other marks after the pupils have handed in their booklets but before the answer sheets are collected. If this procedure is followed, the pupils should be very carefully supervised to make sure that none of them mark at random items which they did not reach during the time limit for the administration of the test.
11. As soon as a certain test has been given, have all examiners turn in their booklets promptly. Alphabetize and check the test papers against the class lists.
12. If tests are given with separate answer sheets and if the same booklets are used with successive groups, be sure to have them carefully inspected after each use. Erase all notes, figuring, or other writing, or if there is extensive writing in the booklets discard them. If this step is omitted, the tests of those pupils who receive booklets in which other pupils have written may be invalidated.

SPRING TESTING PROGRAM, GRADES 8–12

| DATES<br>PERIOD | April 4<br>Monday | April 5<br>Tuesday | April 6<br>Wednesday | April 7<br>Thursday | April 8<br>Friday | April 11<br>Monday | April 12<br>Tuesday | April 13<br>Wednesday | April 14<br>Thursday | April 15<br>Friday |
|---|---|---|---|---|---|---|---|---|---|---|
| I | Eng. 9A<br>Eng. 8C | →<br>→ | →<br>→ | Lit. 9A<br>Math. 8A*<br>Math. 8C ↓ | GOOD FRIDAY —— SCHOOL CLOSED | | Mod. Eur. Hist. A<br>Contemp. Civilization | French 3A<br>French 2A<br>Latin 2A<br>German 2<br>French 4 | Math. 9B<br>Math. 11A | COMPLETE ANY ABSENTEE "MAKE-UP" TESTS; WHEREVER POSSIBLE→ |
| II | Eng. 8A<br>Eng. 9D<br>Eng. 10A | →<br>→<br>→ | →<br>→<br>→ | Math. 8A–C*<br>Lit. 9D<br>Lit. 10A | | Chemistry ↓ | Mod. Eur. Hist. B<br>Hist. 8B ↓ | French 1A<br>Latin 2B<br>German 1 | Math. 12 | |
| III | | | (Assembly) | Math. 8B ↓ | | Chemistry | Hist. 8B<br>Hist. 8C ↓ | (Assembly) | Physics ↓ | |
| IV | Eng. 9C<br>Eng. 10B | →<br>→ | →<br>→ | Math. 8B<br>Lit. 9C<br>Lit. 10B | | Biology A | Hist. 8C<br>Hist. 8A ↓ | French 3B<br>French 2B<br>Latin 1A | Physics | |
| V | Eng. 12B<br>Eng. 11A<br>Eng. 9B<br>Eng. 8B | →<br>→<br>→<br>→ | →<br>→<br>→<br>→ | Lit. 12B<br>Lit. 11A<br>Lit. 9B | | | Hist. 8A<br>American Hist. A | Latin 3 | Math. 10A<br>Math. 9A<br>Math. 9C | |
| VI | ← (LUNCH PERIOD) → | | | | | ← (LUNCH PERIOD) → | | | | |
| VII | Eng. 12A<br>Eng. 11B | →<br>→ | →<br>→ | Lit. 12A<br>Lit. 11B | | General Science ↓ | Biology B<br>Anc. Hist.<br>Am.Hist.B | French 1B<br>French 1C<br>Latin 1B | Math. 11B<br>Math. 10B | |
| VIII | | | | | | General Science | | | | |

*8A and 8C *Math.* groups *combined* for 80″ test.

——→ Indicates next section of test continued next day in same period.

↓ Indicates 80″ test continuing into following period, same day*

All tests are 40″ *except* English = 120″; Grade 8 Tests = 80″; Chemistry, Physics, General Science = 80″.

Made available through the courtesy of Miss Mary Tayloe Souther, who supervises the testing program at the Tower Hill School, Wilmington, Delaware.

13. Except in cases of protracted illness, *see that all absentees make up the examination.* You will find this part of the testing program a great nuisance and you will feel that it is not worth the bother, but it is an unavoidable step, for complete data are essential if the results are to be used successfully in either teaching or guidance. Moreover, if the pupils once discover that absentees do not have to make up the tests, a few escapists will conveniently be ill every time an examination period arrives.
14. See that the tests are scored promptly. Report the results to the faculty in a form that they can use and provide them with an explanation of the meaning of the results.
15. Have the scores of each pupil entered on an individual cumulative record card and make this card available to both counselors and classroom teachers. The card may also be shown to the parents if the data are carefully explained in conference.

The following materials furnish two illustrations of Step No. 4 in the foregoing list of suggestions. The first is a schedule of the spring testing program prepared for the teachers at Tower Hill School, Wilmington, Del. It illustrates directions for a testing program which is to be administered to the regular class groups. The second is a set of "General Directions Concerning Fall Testing Program" which was distributed in mimeographed form to the students in The Hill School, Pottstown, Pa., in connection with the fall testing program in that school. It illustrates the planning of a special schedule for the testing program for an entire school without regard to the regular class schedule.

### GENERAL DIRECTIONS CONCERNING FALL TESTING PROGRAM[1]

(Do not lose these sheets!)

1. There will be a General School Meeting on Thursday evening at 7:45 P.M. in Memorial Hall. All boys, *including day students,* must attend.
2. The tests start on Thursday evening and continue through Saturday noon. There will be no classes on Friday and Saturday.
3. Read carefully Page 2 in order to determine which tests you are to take.
4. Consult Page 3 for the schedule of these tests.
5. Consult the Common Room Bulletin Boards to find out the room in which you will take a given examination. *YOU WILL NOT HAVE ALL YOUR TESTS IN THE SAME ROOM.* Therefore, be sure to consult the Bulletin Board before each test and PLEASE DO NOT WAIT UNTIL THE LAST MINUTE TO DO THIS.
6. Be in your seat in the examination room at least five minutes ahead of the scheduled examination time. EXAMINATIONS WILL START ON TIME! The tests are spaced close together and it is important that everyone be on time.
7. Be sure to have with you at each test a SUPPLY of well-sharpened pencils. Ink must not be used.
8. No one may leave the room until the end of each test. WAIT FOR DISMISSAL. You will need all the time allotted.
9. On each test you must indicate the name of the course you are taking in that subject, giving the exact full name. For example:

| | |
|---|---|
| 6F. Honor English | 2F. English |
| 6F. Special English | 5F. Mathematics |
| 4F. French A | 5F. Geometry |

*et cetera*

Be sure you know the name of your instructor and how to spell his name.

10. THE MOST IMPORTANT THING IN TAKING THE TESTS IS TO FOLLOW ALL DIRECTIONS VERY CAREFULLY. *Wise* guessing may improve your score. *Wild* guessing *will* lower it. Don't be a gambler!
The scores you receive on these tests will be recorded on your cumulative record card. Make yourself look as brilliant as possible!

WHICH EXAMINATION DO YOU TAKE? *This sheet tells you. Read it carefully.*

*SOCIAL SCIENCE*
Everybody in school *except 2nd Form.*

*AMERICAN COUNCIL PSYCHOLOGICAL EXAMINATION*
Everybody in school *except 2nd Form.*

*KUHLMANN-ANDERSON TEST*
2nd Form only.

*IOWA SILENT READING TEST*
Everybody in school *except 2nd Form.*

*TRAXLER SILENT READING TEST*
2nd Form only.

*FRENCH (advanced)*
Those taking 4F. French A., 5F., 6F., and Special French.

*FRENCH (elementary)*
Those taking 4F. French.

*GERMAN*
Those taking 4F., 5F., 6F., and Special German.

*SPANISH*
Those taking 4F. and 5F. Spanish.

*MATHEMATICS*
Gen. Achievement Math. . . . . . 5F. Geom., 5F., and 6F.Math.
Mathematics, 7, 8, 9 . . . . . 2F., 3F., 4F., Algebra & 4F. Math.

*ENGLISH*
Everybody in school.

*LINCOLN SPELLING TEST*
Everybody in school.

[1] Prepared by Ralph C. Johnson, assistant headmaster, The Hill School, Pottstown, Pennsylvania, and used with his permission.

## SCHEDULE OF TESTS

Note: The starting time indicates the time that the examiner will start the examination. YOU MUST BE IN YOUR SEAT FIVE MINUTES BEFORE STARTING TIME.

BE SURE TO CONSULT:

1. Page 2—"Which Examinations do you take?"
2. The Common Room Seating Lists.

. . . . . . . . . . .

*THURSDAY*, October 14.

7:45 P.M. General School Meeting in Memorial Hall.
8:15 P.M. Social Science Test.

*FRIDAY*, October 15.

9:00 A.M. American Council Psychological Examination. Kuhlmann-Anderson Test.
10:45 A.M. All tests in Mathematics.
2:00 P.M. French, German, and Spanish Tests.
7:45 P.M. Iowa Silent Reading Test.
Traxler Silent Reading Test.
9:00 P.M. Lincoln Spelling Test.

*SATURDAY*, October 16.

9:00 A.M. All English Tests.

AFTER YOU HAVE READ THIS SEE IF THERE ARE ANY CONFLICTS; IF SO, REPORT THEM TO MRS. MERWIN, PERSONNEL OFFICE, *BEFORE NOON ON THURSDAY*.

## TEST INFORMATION FOR STUDENTS[2]

Suggestions concerning the taking of objective tests which may be mimeographed on a single page and given to each pupil are contained in the following paragraphs:

The purpose of this sheet is to inform you about the general nature of some tests you will take within the next few days. The purpose in giving them is to inform your teachers and counselors about your ability and your needs so that they can provide the best possible learning and guidance conditions for you.

Each test contains a large number of questions calling for very brief answers. For most of the questions, several answers are suggested and you will be asked to select the one which you think is right. You should not become discouraged if you find some questions which you are unable to answer, for you are not expected to answer all the questions. Some of the tests are used in several grades and, of course, the pupils in the lower grades are not expected to answer so many questions as those in the higher ones. It is almost impossible for even the most advanced student to obtain a perfect score.

It is advisable to answer some questions about which you are not entirely sure. If you think you know the answer, you should put it down, even though you are not certain, but you should not guess wildly on questions concerning which you are totally uninformed. In some tests in which a certain proportion of the wrong answers is subtracted from the correct answers, blind guessing may result in a large reduction in one's score.

There is no passing mark for these tests. Results will be expressed in percentiles which will show how you stand in comparison with other students in the same grade or class who take the same test in many different schools.

Since time is an important element, be sure to have at least two well-sharpened pencils and an eraser. Do not use ink because of the possibility of the pen running dry and the difficulty of erasing.

Some tests are to be given with special answer sheets so that they may be scored by means of an electrical machine. If you take one of these tests, you will be given a practice test to acquaint you with the way in which the answer sheets should be marked. The important thing to remember is to use *only* the special pencil which will be furnished you and to make heavy black marks.

*Points to Keep in Mind When Taking the Test*

1. *Listen carefully* to all instructions given by the examiner and follow them exactly.
2. You are not expected to answer *all* the questions but *answer as many as you can.*
3. Work as *rapidly* as you can, spending very little time puzzling over difficult questions. Return to the hard questions if you have time after you have gone through the test.
4. Guess only if you can do so *intelligently*. Don't guess if you know nothing about the question.
5. Go to the examination room with *two pencils* and an eraser. If a special pencil is given to you use it *only*.
6. Do not waste your spare time during the days on which the examinations are scheduled, but spend the time as constructively as you would during any school day.

## NEED FOR PLAN OF USING TEST RESULTS

It cannot be emphasized too often that the administration of tests is merely a means to an end. The purpose of testing is to obtain data that can be used in improving the instruction, distribution, and adjustment of individual boys and girls. Too often persons in charge of testing programs feel that they have discharged their responsibility when reports of the results have been filed, and any use that is made of the results is left to the initiative of individual staff members.

Every school should have a carefully planned program for using the results of all tests given to the pupils. The first step in this program is to provide each counselor

[2] Adapted from a sheet prepared by Ralph D. Britton, formerly of The Loomis School, Windsor, Connecticut.

and teacher with a copy of the test results which are of special concern to that particular staff member. The second step is to record the results cumulatively on some meaningful and comparable basis, such as Scaled Scores or percentiles. The test scores should be merely one of several important parts of a comprehensive record form which covers several years and contains a digest of all pertinent information about each pupil. Along with the cumulative-record system there should go a vigorous and continuous program of educating the school staff in the interpretation and the use of the records. Test technicians, statisticians, psychologists, psychiatrists, and clinicians can well coöperate in training the school staff. The most important aspect of the training, however, is the daily experience that each staff member should have in using the data in solving the problems of his own pupils, until he habitually turns to objective records as his most useful tool in individualizing instruction and fulfilling his guidance function.

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CHAPTER X

# *Scoring, Organizing, and Reporting Test Results*

## SCORING PROCEDURES

As SUGGESTED IN THE PRECEDING CHAPTER, IF a testing program is to be of any great value in the guidance work of a school, it is necessary that the tests be scored accurately and quickly and that the results be reported to the teachers in a form that they can and will use. Unless the whole program is carefully planned, there is danger that the scoring of the tests will be allowed to drag over such a long period of time that the teachers will have lost all interest in them. A still more serious danger is that of inaccuracy of scoring. Objective scoring with an answer key seems such an easy, mechanical procedure that novices in testing are likely to be entirely unaware of the difficulties involved. The work may be placed unknowingly in incompetent hands, for some otherwise intelligent and capable persons seem constitutionally not fitted for a mechanical task such as scoring papers. Sample checking of scoring frequently reveals a surprisingly high percentage of errors, some of which are serious enough to affect the standing of the pupil significantly.

In general, there are four ways of getting the scoring done after the tests have been administered: local hand scoring, local machine scoring, machine scoring at a service center equipped with electronic test processing equipment, and hand or machine scoring and reporting by a service agency.

### LOCAL HAND SCORING

If the tests are to be scored at the local school, one of the first and most important questions concerns the personnel to be used in the scoring. Probably the most common, but certainly the least satisfactory procedure, is to have the teachers or counselors do the scoring. A teacher may be a good instructor but a very poor scorer.[1] Teachers as a group are probably no more efficient scorers than office clerks; in fact, they are probably less efficient than well-trained office workers. Since the salaries of teachers and counselors are higher (or should be higher) than those of clerks, it obviously is poor economy to use them for scoring.

A more important reason for not assigning the scoring of objective tests to teachers is that this routine drudgery takes valuable time and energy that should be used in planning instruction and guidance. In answer to this statement, it is sometimes insisted by administrators that the scoring of tests is valuable experience for teachers because they believe that this work acquaints the teachers with the strengths and weaknesses of their pupils. This argument would have validity if a scorer of objective tests were obliged to read each question and evaluate each answer, but that is not the way efficient scoring is done. One compares a key with the answers of the pupils and checks the right and the wrong responses mechanically. It is true that the teacher could take the time to study each pupil's paper while correcting it, but this would not be scoring; it would be diagnosis. Diagnosis is a necessary step for the teacher to take, but it should not be confused with the scoring of the papers. It is reasonable to believe that both the diagnosis and the scoring will suffer if the teacher's attention is thus divided between two unrelated activities.

Although the use of teachers or counselors in scoring is not advised, it is realized that in some schools the instructional and counseling staff will continue to do this

[1] Arthur E. Traxler. "A Note on the Accuracy of Teachers' Scoring of Semi-Objective Tests," *Journal of Educational Research,* XXXVII (November 1943), 212–213.

kind of work because no other services are available for it. When this is necessary, it is desirable to observe the following rules:

1. Make sure that each teacher understands just how the scoring is to be done.
2. Rescore the first few papers scored by each teacher and make suggestions for the elimination of errors as needed.
3. Thereafter, check the scoring of every fifth or sixth paper and the addition of part scores on all papers.
4. Completely rescore the test booklets when any systematic errors are found, or whenever there is any reason to doubt the accuracy of the scores.

For objective hand scoring that is to be done locally, it is preferable to hire clerks who are specially selected for this purpose. They should be placed under a supervisor, who will carefully check their scoring and insist upon a high standard of accuracy and reasonable speed. The checking of counting and addition is more important than the checking of the scoring of individual items, since it is in counting and adding that large errors are usually made.

## LOCAL MACHINE SCORING

The most revolutionary development in the scoring of objective tests has been the application of machine methods to the scoring process. Although there had previously been a number of exploratory attempts to score tests mechanically, the first successful machine scoring method was initiated in the 1930's through the production of the electric Test-Scoring Machine of the International Business Machines Corporation. This remarkable timesaving machine has had great influence on test construction, test scoring, and test use for some 20 years. During World War II, it was virtually indispensable in the selection of personnel for a great variety of military assignments. The tests of many millions of high school and college students have been processed on this machine. While it seems likely that this pioneering venture in machine scoring will gradually be replaced by still more efficient methods, this kind of IBM machine scoring will no doubt continue to be used in many places for years to come.

Notwithstanding the wide use of the IBM Test-Scoring Machine, which has been available since about 1935, a surprising number of teachers and even some counselors have never seen one of these scoring machines in operation and have little idea how it works. It seems appropriate, therefore, to discuss this machine at some length, partly as a matter of historical record and partly for the information of teacher-counselors who may be expected to do a better job of test administration if they are acquainted with the requirements of this kind of mechanical equipment.

The idea of a mechanical device for scoring tests goes back 25 years or more. One of the first persons to suggest the feasibility of a machine of this kind was Dr. Ben D. Wood of Columbia University, who saw the need in connection with the great volume of test scoring required by the Pennsylvania study carried on by the Carnegie Foundation for the Advancement of Teaching. President Thomas J. Watson of the International Business Machines Corporation became interested in the idea and various procedures were tried out, but for a time no satisfactory plan was evolved. Finally, Reynold B. Johnson, a young science instructor, who later became director of the Westcoast laboratories of the International Business Machines Corporation, set up a model that became the basis of the present machine.

The IBM scoring machine makes use of the elementary fact that a soft lead pencil will conduct an electric current. Instead of indicating his answers in the test booklet in the usual manner, the pupil records them on an answer sheet similar to the one shown in Figure 4. Each side of the standard answer sheet provides for answers to 150 questions, with a maximum of five choices to each question. Instead of writing the number of his choice for each item in a designated place, as in the ordinary objective test, the pupil indicates it by penciling a heavy mark between the printed lines in the position which represents the number of his choice.

The scoring machine is so constructed that it contains 750 sensing units corresponding to the 750 possible choices on the answer sheet. Each sensing unit is connected in series with a high-resistance coil which allows an infinitesimal but definite amount of electricity to flow through the unit when the connection is made by means of a pencil mark. After the test has been given, the machine is set by means of a master scoring key which divides the current into two circuits—one for the right responses and one for the wrong responses. The answer sheets are then dropped one by one through a slot in the machine and the score is read from an ammeter conveniently placed in front of the operator.

The great advantage of the scoring machine, of course, lies in the fact that it works with the speed of electricity and that it will score up to 150 five-choice items at once, or an even larger number of items having fewer choices. It has been found that an experienced operator can score as many as 500 tests an hour with no error of more than one point.

The scoring machine has been equipped with an item analysis unit which makes it possible to secure a graphic record of the number of right responses given by a class or other group to each item in the test. The advantages

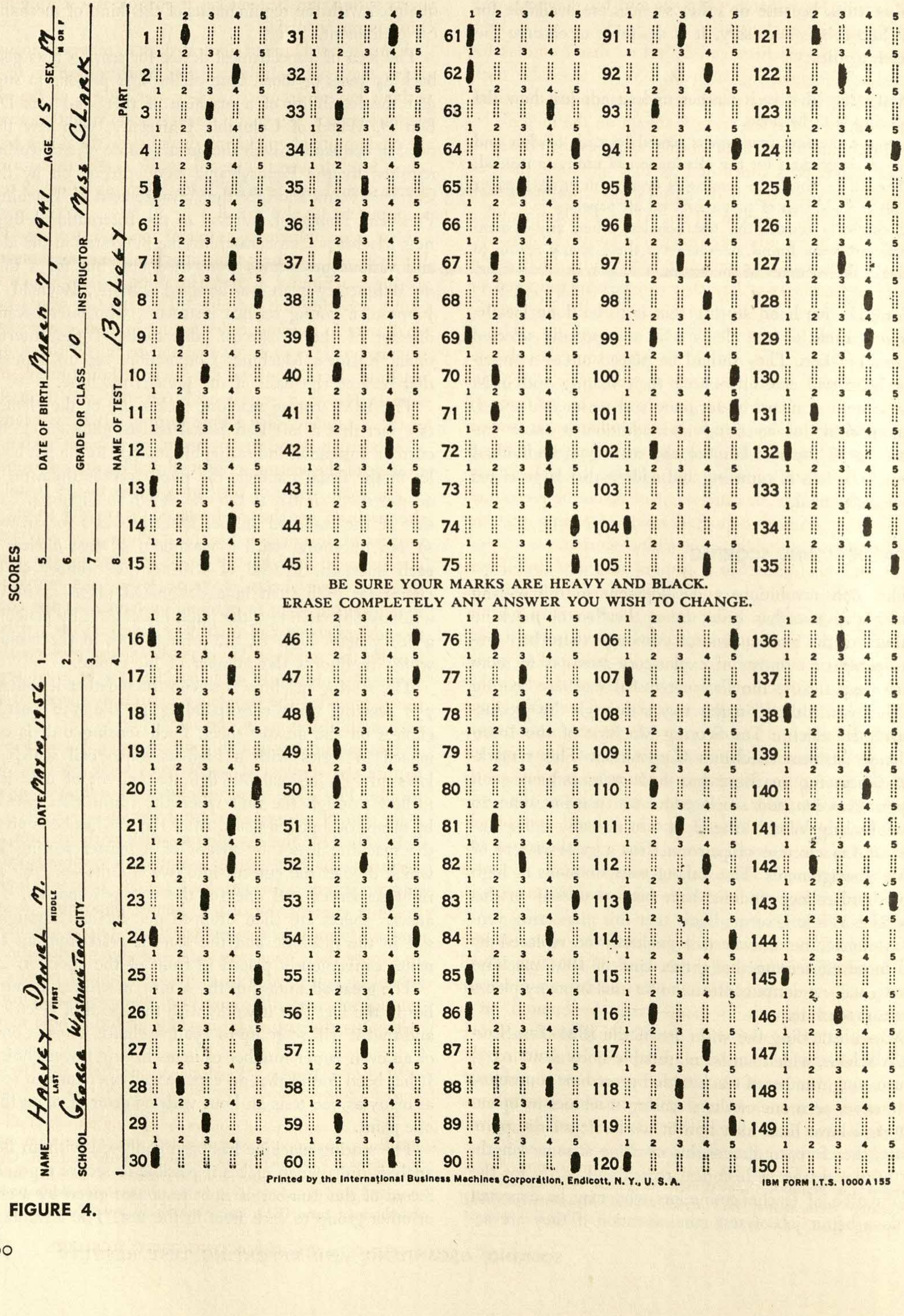

NAME Harvey Daniel M.
LAST FIRST MIDDLE
DATE May 10, 1956
DATE OF BIRTH March 7, 1941
AGE 15
SEX M
M OR F
SCHOOL George Washington
CITY
GRADE OR CLASS 10
INSTRUCTOR Miss Clark
NAME OF TEST Biology
PART
SCORES
BE SURE YOUR MARKS ARE HEAVY AND BLACK.
ERASE COMPLETELY ANY ANSWER YOU WISH TO CHANGE.
Printed by the International Business Machines Corporation, Endicott, N. Y., U. S. A.
IBM FORM I.T.S. 1000 A 155

FIGURE 4.

of this unit for research purposes and for diagnosis and reteaching are obvious.

The scoring machine can be set so that formulas for correcting for guessing, such as R-W in true-false tests, and R-W/4 in five-response tests, are applied automatically and the corrected score is shown on the meter.

A limitation to machine scoring, as far as the classroom use of the tests is concerned, is that although the machine shows the score of the pupil it does not mark each individual item. Therefore, if one wishes to note just what questions a given pupil has answered correctly, it is necessary to resort to supplementary procedures such as the use of a punched-out key that can be superimposed on the pupil's paper or the overprinting of the key on the answer sheets.[2]

Another limitation is that all items must be phrased strictly in objective form, such as multiple-choice items and matching items. Some persons may try to force all tests into purely objective form even when their content may not be adapted for the objective type of item, although the distributors of the machine, as well as psychologists and test constructors, have taken the precaution of warning users that not all kinds of testing material are at present suitable for machine scoring.

In the beginning, test authors and test publishers varied considerably in their willingness to make the changes necessary in order to set their tests up for machine scoring. Some test authors who already had extensive series of tests in print naturally hesitated to revise their tests for machine scoring in view of the fact that if the nature of the items was changed to make them purely objective it was necessary to prepare new norms. The proper standardization of a test is a tedious and expensive procedure. Moreover, if the score is based partly upon a speed factor, it is necessary to go to the additional trouble of equating the results of hand-scored booklets and machine-scored answer sheets, for the use of answer sheets causes those taking tests to work at slower speeds than they would if they marked their answers in booklets.

Many of the older tests were, however, soon adapted for machine scoring, and the majority of the high school and college tests published within the last 15 years are so arranged that the responses may be entered on a separate IBM answer sheet for machine scoring. Provision is also made in most of these tests for entering the answers in the test booklet if that procedure is preferred. However, separate answer sheets must be used with some of the newer tests, although hand scoring of the answer sheets with a punched-out key is possible if a scoring machine is not available.

A study by Dunlap[3] indicated that separate answer sheets may successfully be used with objective tests, without loss of accuracy, as low as Grade 4 of the elementary school, but many teachers seem doubtful about the advisability of employing them below the junior high school level. It seems to be universally agreed that answer sheets should not be used in the administration of tests to pupils in Grades 1 and 2.

Cost is an important aspect of machine scoring. The International Business Machines Corporation rents the scoring machine at a charge of $600 a year, which includes servicing the machine.[4] This amount would be a small item in the budget for testing in a large city school system, but it is probable that the rental on the scoring machine places it beyond the reach of thousands of small schools. However, such schools can still avail themselves of the advantages of machine scoring, either by means of a coöperative rental arrangement, or through taking advantage of the scoring services offered by various agencies.

The main items of cost, in addition to the rental for the machine, are the test booklets, the answer sheets, the services of an operator for the machine, and the special pencils to be used by the pupils in marking the answer sheets. Answer sheets, of course, would not be required if the scoring were to be done by hand, but the cost of the answer sheets can usually be saved on the test booklets, for the pupils make no marks on the booklets themselves and ordinarily each booklet can be used several times, provided the booklets are carefully inspected after each administration of the test.

The machine is not difficult to operate and does not require the services of one who is highly trained technically. The wage of an operator will ordinarily approximate that of a superior clerical worker.

In order for the machine to work without error, it is necessary that the pupils record their responses on the answer sheets with soft lead pencils that are high in graphite content. Since it is almost impossible to maintain uniformity in this respect if the pupils are allowed to supply their own pencils, it is recommended that the school be equipped with a supply of special pencils containing soft leads that have been made especially for use with tests that are to be machine scored. These may be

[2] Arthur E. Traxler. "A Procedure for Overprinting Answer Sheets for Hand Scoring Which Might be Adapted to Local Scoring," *Educational and Psychological Measurement,* VIII (Spring 1948), 65–67.

[3] Jack W. Dunlap. "Problems Arising from the Use of a Separate Answer Sheet," *Journal of Psychology,* X (July 1940), 3–48.

[4] A recent court ruling requires the offering for sale of all IBM tabulating machines. Scoring machines now in operation may be purchased at a rate depending on the age of the machine. Owners of scoring machines may obtain services at a monthly rate also depending on how old the machine is. Detailed information may be obtained from IBM, 590 Madison Avenue, New York, N.Y.

regarded as a part of the standard equipment of all schools using machine scoring of this type.

The most difficult problem in machine scoring with IBM equipment occurs in the administration of the tests. If correct scores are to be obtained with this machine, it is necessary that the responses of the individuals be made with heavy, black, glossy marks and that dots or other stray marks be eliminated. Examiners need to use great care to see that answer sheets turned in are suitable for scoring by machine. Otherwise, it is necessary for clerical workers to spend many hours in darkening responses and erasing stray dots and marks before the answer sheets are run through the machine. In the usual machine-scoring department, a great deal more time is spent in scanning answer sheets and cleaning up stray marks than in the actual scoring of the papers. Procedures for improving this situation have been suggested in other publications.[5]

The relation of machine scoring to the testing program of a school can best be illustrated by the following statement concerning the testing program of a fairly large public high school.

## PLAINFIELD HIGH SCHOOL TESTING PROGRAM

One of the pioneering test-scoring machine installations is at the Plainfield High School, Plainfield, New Jersey. The following description of their machine scoring program will be of interest to other high schools as an illustration of the place of the test scoring machine in a high school program.

The following tests are administered in the annual program of testing:

*In October:*

1. A general test of academic aptitude for all pupils enrolled in the school. In one school year, the tests used were the Otis Quick-Scoring Gamma Test in Grades 9 and 10 and the American Council Psychological Examination, College Freshman edition, in Grades 11 and 12.
2. The Iowa Silent Reading Tests in Grades 9 and 10; also the Traxler High School Reading Test in all grades.

*In April:*

1. Iowa Algebra Aptitude Test in Grade 8.
2. Iowa Plane Geometry Aptitude Test for all pupils electing Algebra I.

*In June:*

Cooperative Achievement Tests in the five academic areas for which these tests are prepared.

The program for one year included 11,080 standardized tests administered, scored, reported, and recorded.

All tests used in the annual program, with the exception of the Iowa tests, were machine scored.

The machine is used not only for scoring the tests given in the annual testing programs, but also for scoring classroom quizzes, final examinations, etc., which are constructed by the teachers.[6]

The Plainfield administration has noted the following benefits resulting from the elimination of the tedium of hand scoring:

1. By making test results almost instantly available, the machine has increased the efficiency of the testing program, and has decreased the probability of a loss of interest on the part of the teachers concerned, during the time required for hand scoring.
2. By making use of a standard answer sheet that is now carried in stock for objective tests which they prepare, teachers may have these tests scored by the office on the same day on which they are given, thus decreasing the clerical burden of classroom testing.
3. Since the test booklets are not marked in any way by the pupils, the tests purchased annually, formerly written off as current expenses, now become part of the school's permanent library of tests. At present this library contains about 18,000 tests, which may be administered at any time in the school year that the teacher feels it would be advisable, for checking progress or for diagnosis.

## A NEW IBM TEST-SCORING MACHINE IN THE MAKING

At the time this book was prepared, about two years of developmental work had been done by the International Business Machines Corporation on a new test-scoring machine, and a laboratory model had been constructed. A large amount of planning and experimental work remained to be done before the new machine would be ready to be released.

According to available information, it is expected that the new IBM test-scoring machine will be much different from the old one. With a view to utilizing principles and procedures basic to other IBM equipment, experimentation was being carried on with the use of the familiar IBM card as the answer sheet on which the pupil would record his response to test items. It is believed that the IBM card answer sheet can be so designed that its capacity will be adequate for use with objective tests.

It is expected that the use of special pencils with very soft lead will not be required as with the answer sheets for the old machine, and that stray marks and dots will not appreciably affect the scoring.

[5] Arthur E. Traxler. "The IBM Test Scoring Machine: An Evaluation," *Proceedings of the 1953 Invitational Conference on Testing Problems*, pp. 139–146. Princeton, N.J. Educational Testing Service, 1954. Pp. xii + 180.

[6] From *The Answer Sheet*, published by the Test Scoring Department of the International Business Machines Corporation, 590 Madison Avenue, New York, N.Y. (No. 6, March 14, 1939.) Used with permission.

Present plans are understood to include a scoring machine that will have a number of new automatic features and that will perform various other operations required in the treatment of test scores. Its anticipated speed of operation will be considerably in excess of that of the older machine.

It is evident that the close relationship of the new scoring machine to IBM tabulation equipment will greatly facilitate the preparation of distributions of scores, class lists of scores, and percentile ranks, and will also facilitate item analysis, statistical analysis, and research.

At this time, no information is available on the rental or sale price of the new equipment.

### TEST PROCESSING BY A SERVICE AGENCY USING SPECIAL MECHANICAL EQUIPMENT

For about ten years Testscor, formerly Engineers Northwest, has provided rapid machine-scoring services for the Strong Vocational Interest Blanks. The intricate automatic device on which the Strong blanks are scored was built specially for scoring this particular type of inventory. A complete answer sheet for the Strong blank can be scored in 30 seconds. It is preferable to use the Hankes answer sheet rather than the IBM answer sheet for the Strong blanks when the scoring is to be done on this machine. It is said that this machine is equivalent to more than 70 of the conventional type of scoring machines for performing this particular task.[7]

### IOWA ELECTRONIC TEST-PROCESSING EQUIPMENT

The most revolutionary recent contribution to machine scoring is the electronic test-processing equipment developed under the direction of E. F. Lindquist of the State University of Iowa.[8] This equipment consists of a high-speed automatic test-scoring machine in conjunction with a special-purpose digital electronic computer and a fast output printer. An 8½- by 11-inch answer sheet of compact design so that the answers to as many as 960 multiple-choice items may be placed on the two sides of the sheet is used with the machine. Responses are indicated by heavy black dots in small boxes. An ordinary lead pencil may be used in making the dots. Scanning the answer sheets for double marks or stray dots is not necessary, since the machine automatically takes care of this. The answer sheets are fed through the machine automatically at the basic rate of 6000 an hour. As the answer sheets go through the machine, the marks are sensed photoelectrically from both sides of the sheet simultaneously. The answers are compared with the key of correct answers, and the scores are recorded in digital electronic counters. Thus, scores on as many as 14 different tests involving up to 960 items may be obtained from a single pass of the answer sheet through the machine.

During the scoring process, the machine will convert raw scores on as many as 14 tests into derived scores in accordance with a conversion table for each test. These derived scores may be Scaled Scores, percentile ranks, T-scores, age or grade equivalents, or practically any other kind of derived score. If desired, the machine will convert raw scores to two or more derived scores simultaneously.

At the same time, the machine will "read" from the answer sheets the examinee's name and other information, which may be in either alphabetical or numerical form. From this information, it will print reports of the names of the pupils and all their scores. The maximum length of a line is 93 characters, of which any 18 may be either alphabetical or numerical. If the number of scores to be reported for each answer sheet is comparatively small, the machine will print both lists and individual reports at the same time. The machine will also print the necessary headings on the list.

If desired, the machine will provide scores on odd- and even-numbered items separately for each of as many as seven tests so that reliability coefficients may be computed. This is only one of many research contributions of the machine which might be listed but which are not of primary concern here.

The services of the Iowa Electronic Test Processing Equipment are made available through a nonprofit corporation, the Measurement Research Center. The equipment was placed in use in March 1955, and after several months of experience the general service was offered starting in January 1956.

MRC offers both standard and special services. The standard "package" service is designed for widely used multiple-choice test batteries. This standard service is obtained either through the publishers of the tests or through large-scale testing programs which have made arrangements with test publishers.

MRC sells the machine scorable answer sheets to test publishers or to testing agencies at a price which includes the cost of the standard processing service. The test publisher or test agency then retails the answer sheets and services to its clients.

The standard service includes (1) designing and printing of special machine-scorable answer sheets; (2) re-

[7] Elmer J. Hankes. "New Developments in Test Scoring Machines," *Proceedings of the 1953 Invitational Conference on Testing Problems*, pp. 157–159. Princeton, N.J.: Educational Testing Service, 1954. Pp. xii + 180.

[8] E. F. Lindquist. "The Iowa Electronic Test Processing Equipment," *Proceedings of the 1953 Invitational Conference on Testing Problems*, pp. 160–168. Princeton, N.J.: Educational Testing Service, 1954. Pp. xii + 180.

ceiving of marked answer sheets from the users; and (3) processing the answer sheets, including (a) scoring of answer sheets, (b) conversion of raw scores to derived scores, (c) computation of weighted combinations of converted scores, (d) printing of list reports of scores in triplicate, and (e) punching of IBM cards, one for each answer sheet, containing the names and scores of the examinees.

The special services for which arrangements may be made include computation of the means and variances of score distributions, intercorrelations among the tests, and odd-even reliability coefficients.

The potential speed of the service is remarkable. It is possible to score up to 100,000 answer sheets with the Iowa equipment within a 24-hour period. However, the speed of service for any particular school depends to a considerable extent upon the scheduling of the work in advance to avoid conflicts with services requested by other users. It is not practicable, of course, to set up this complicated mechanical equipment for a small number of answer sheets, so it may be necessary to hold the answer sheets from a particular school until they can be combined with those from other institutions using the same set of tests, and the whole group of answer sheets processed as one job. It is expected that ordinarily reports will be issued within a few days after the answer sheets are received at the test processing center.[9]

## HAND AND MACHINE SCORING BY A SERVICE AGENCY

Many schools are now taking advantage of scoring services made available in state testing programs which now exist in about half the states,[10] or the services provided by various agencies which are national in scope. This plan insures accuracy of scoring and statistical work and relieves the local school of a great deal of routine work. Even when the actual test processing is to be done on electronic equipment such as that located at the State University of Iowa, schools will often find it advantageous to participate in their own state testing program or in a national testing program carried on by schools of their own type, and leave the detailed arrangements with MRC to the central agency.

Both hand- and machine-scoring services are provided by various state bureaus, and at least one organization of national scope, the Educational Records Bureau. A report of the scoring procedures used by the Educational Records Bureau may perhaps be suggestive to schools that are obliged to do their own scoring locally.

The Educational Records Bureau is a research and service agency which has a membership of more than 650 institutions, most of which are independent or private elementary and secondary schools. It is a self-supporting organization. Its income is derived mainly from its services in connection with scoring and reporting the results of tests for the schools belonging to the Bureau. It does not construct tests, but through a committee composed of representatives from its member schools, it selects from the available tests those which seem best adapted to the needs of the whole group of schools taking part in the testing. A limited portion of the Bureau's scoring services is available to nonmembers, although it is expected that institutions using the services regularly will become members of the organization.

Two testing programs are conducted annually by the Bureau's member schools. The fall program consists of academic aptitude and reading tests, along with some achievement tests for placement and diagnosis. In the spring, a comprehensive achievement testing program is conducted in all academic subjects at the elementary and secondary school levels. Every member school is free to participate as little or as fully as desired in the testing programs. The schools obtain the tests with complete directions for giving them from the Bureau. The tests are administered by the schools themselves, usually within a specified period, although they are free to utilize the services of the Bureau at other times if they so desire. Some of the schools score their tests locally, but the majority return them for central scoring by the Bureau's staff at a per-test-per-pupil cost. Norms for independent schools are prepared from the results of the tests scored at the Bureau.

Most of the schools participating in the testing programs are independent schools whose enrollments, in comparison with those of public schools, are rather small. The teachers are able to do a considerable amount of diagnostic work with the test results provided the scored test booklets are returned. Hand scoring, therefore, is still used more extensively than machine scoring in connection with the independent-school tests.

During a testing program, the tests from as many as 200 schools may be returned to the Bureau almost simultaneously. The careful organization of all details of the scoring and reporting, therefore, is absolutely essential. During the testing season the scoring is set up in departments according to the nature of the different tests and about half of the Bureau's regular staff of 25 persons serve as supervisors of these departments. Most of

[9] Price quotations on scoring with the Iowa Test Processing Equipment may be obtained from Measurement Research Center, P.O. Box 69, Iowa City, Iowa.

[10] For information concerning the services of statewide testing programs, see Arthur E. Traxler, "The Status of Statewide Testing Programs," *1954 Achievement Testing Program in Independent Schools and Supplementary Studies*, pp. 86–92. Educational Records Bulletin No. 63. New York: Educational Records Bureau, July 1954. Pp. xii + 96.

the actual scoring work is done by part-time employees who have been carefully tested and selected for this work.

Rather extensive experimentation has been done with various screening tests in the selection of scorers. Formerly an intelligence test was administered to applicants for scoring work, but this was discontinued since it does not appear that the results of the usual verbal test of mental ability are very highly correlated with success in objective scoring. For several years, each applicant for a scoring position was given a scorer's test in which the scoring situation was approximated as nearly as possible. It was found, however, that the accuracy and speed scores on this type of test had rather low correlation with actual success in scoring. At present, the Minnesota Clerical Test is administered to all scoring applicants, and the results of this brief test, along with a personal interview, are providing reasonably good prediction of success in the actual scoring situation.

A scorer is assigned to a certain department and usually works on one particular kind of operation. The work done in scoring tests is always identified by the initials of the scorers so that responsibility can be allocated definitely.

The papers hand scored by new employees are always completely rescored. After a worker has satisfactorily demonstrated his accuracy, the rescoring is reduced to the checking of one paper in five, except in the case of certain very important tests. However, such operations as the counting of number of right answers, and the addition of part scores in tests containing several sections, are invariably done twice.

When the tests are received from the schools they go to the classification department where they are inspected for discrepancies and carefully separated into the proper groups as determined by number of years of study and other factors. The amount of time that will be needed for scoring is estimated and the report to the school is scheduled for a certain date.

As fast as the scoring of a certain type of test is completed, the test booklets are turned over to members of the staff whose responsibility it is to make distributions of the scores and to compute medians, quartiles, and any other statistical data that are needed. The booklets then go to the typists who type alphabetical class lists showing the scores of the various pupils. These lists are made in triplicate. When all distributions and lists have been made and the work has been checked, the various parts of the report are assembled and inspected by the chief scoring supervisor.

The assembled report, together with the school's statistical folders for preceding testing programs, is sent to the desk of another member of the staff, who is trained in psychological measurement and guidance techniques. He dictates an extensive letter in which the results are explained and interpreted in considerable detail for the school to which the report is going. This report is preliminary in nature, unless norms for independent schools based on an earlier testing program are available for the tests included in the report. At the end of the program, independent-school percentiles are computed on the basis of the scores from all participating schools, and a second report showing the percentile ratings of each individual pupil is sent to each school.

Almost the same general plan is followed in connection with the machine scoring that is done at the Bureau, except that one machine operator replaces several scorers. Operators usually work in shifts of about two hours' duration.

The scoring and reporting procedures of the Educational Records Bureau have been described in considerable detail because during the nearly 30 years that the Bureau has been rendering this type of service to its member schools, these procedures have proved sound, and it is believed that some of them could be followed in local scoring. Such a plan might readily be adopted with modifications in a uniform testing program involving all the schools in a city school system. Careful systematizing and supervision of the scoring work, together with a thorough plan for checking every important operation, insure the accuracy and speed which are the prime essentials of every testing program.

## REPORTING PROCEDURES

If a testing program is to be of any real value to a school, it is imperative that the results be placed in the hands of the teachers and counselors as soon as possible. Too often a school will end its testing program with the scoring of the tests, apparently under the mistaken impression that the mere taking of the tests will bring about improvement.

The emphasis in reporting results of tests to the faculty should be on the scores of individuals rather than on group comparisons, although the achievement of groups may well receive some attention. An adequate summary report of the results of tests consists of at least two types of record: (*a*) distributions of scores by classes, together with medians and quartiles, or means and standard deviations, and (*b*) alphabetical class lists showing the part scores, total scores, and percentile ratings of individual pupils.

### LISTS AND DISTRIBUTIONS OF SCORES

In preparing class lists, it is desirable to show the scores made on the parts of the test, as well as the total score, if such part scores are of sufficient practical importance and

TABLE 1. Scores and Percentiles of a Ninth-Grade Class on the Cooperative English Test

School: *Century Day* City: *New York* State: *N.Y.*

Grade: *9* Date of Report: *April 29, 1956* Date Adm.: *April 7, 1956*

| | | Cooperative English Tests, Form RX | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A Mech. of Expression | | $B_1$ Effect. of Expression | | $C_1$ Reading Comprehension | | | | | Total English | |
| Names of Pupils | Chron. Age | Sc. Sc. | %ile | Sc. Sc. | %ile | Vocab. | Speed | Level | Total | %ile | Sc. Sc. | %ile |
| 1. Barton, Barbara A. | 15–5 | 47 | 39 | 49 | 55 | 43 | 54 | 57 | 51 | 43 | 49 | 46 |
| 2. Blum, John W. | 15–3 | 48 | 42 | 53 | 70 | 49 | 46 | 49 | 48 | 29 | 50 | 50 |
| 3. Denton, Robert D. | 14–6 | 47 | 39 | 58 | 85 | 57 | 54 | 59 | 57 | 70 | 54 | 67 |
| 4. Dickinson, Samuel J. | 13–7 | 64 | 94 | 72 | 98 | 68 | 72 | 73 | 74 | 97 | 72 | 98 |
| 5. Duncan, George W. | 14–1 | 52 | 56 | 61 | 90 | 59 | 55 | 62 | 59 | 76 | 58 | 79 |
| 6. Elkins, George H. | 14–11 | 60 | 85 | 60 | 89 | 61 | 59 | 62 | 61 | 82 | 61 | 87 |
| 7. Feder, Fred | 15–8 | 36 | 10 | 40 | 16 | 48 | 34 | 36 | 39 | 6 | 37 | 10 |
| 8. Frost, Virgil C. | 15–1 | 54 | 64 | 64 | 93 | 52 | 46 | 40 | 46 | 21 | 55 | 70 |
| 9. Haynes, Julie A. | 15–4 | 49 | 45 | 46 | 42 | 54 | 52 | 62 | 56 | 66 | 50 | 50 |
| 10. Hunt, Barbara A. | 15–5 | 56 | 71 | 56 | 79 | 51 | 53 | 54 | 53 | 52 | 55 | 70 |
| 11. Kolnick, Mary | 14–11 | 58 | 79 | 64 | 93 | 54 | 53 | 57 | 55 | 61 | 60 | 85 |
| 12. Livingstone, Martin H. | 14–11 | 50 | 48 | 62 | 91 | 47 | 51 | 51 | 50 | 38 | 54 | 67 |
| 13. McKean, Sarah A. | 14–8 | 49 | 45 | 47 | 47 | 51 | 46 | 54 | 50 | 38 | 48 | 42 |
| 14. McNaughton, Jean | 13–11 | 52 | 56 | 59 | 87 | 51 | 51 | 62 | 55 | 61 | 56 | 73 |
| 15. Prescott, Elsie | 15–4 | 47 | 39 | 39 | 14 | 49 | 53 | 46 | 49 | 33 | 44 | 28 |
| 16. Royer, Laurence | 14–3 | 59 | 82 | 60 | 89 | 52 | 58 | 61 | 57 | 70 | 59 | 82 |
| 17. Simpson, Martha F. | 15–7 | 56 | 71 | 62 | 91 | 64 | 54 | 72 | 64 | 89 | 62 | 89 |
| 18. Smith, Marie A. | 15–0 | 50 | 48 | 50 | 59 | 50 | 63 | 60 | 58 | 73 | 53 | 63 |
| 19. Swanson, John S. | 14–8 | 57 | 75 | 62 | 91 | 55 | 68 | 66 | 64 | 89 | 62 | 89 |
| 20. Thompson, Carol E. | 15–2 | 50 | 48 | 51 | 63 | 52 | 48 | 51 | 50 | 38 | 50 | 50 |
| 21. Wickowsky, Jon | 14–10 | 60 | 85 | 63 | 92 | 64 | 60 | 67 | 65 | 91 | 64 | 93 |
| Class Median | | 52.5 | 56 | 59.5 | 87 | 53.0 | 53.8 | 59.0 | 55.5 | 61 | 55.3 | 70 |
| E.R.B. Median | | 50.4 | 50 | 52.1 | 50 | 53.2 | 53.5 | 54.4 | 54.1 | 50 | 52.3 | 50 |

reliability to be used as a basis for studying the pupils and for planning teaching procedures. Percentile ranks, standard scores, or other derived measures, as well as raw scores, should be shown on the lists. A sample class list is shown in Table 1.[11]

The preparation of distributions of scores is a straightforward, routine task that any accurate clerk can readily learn to do once he has been shown the elementary procedures involved. The purpose of a distribution is to indicate the number of pupils making scores at each level from highest to lowest, and thus to facilitate the study of both individuals and groups. In most tests, the range of scores is so great that it is not feasible to show every score in the distribution. The scores are therefore grouped thus:

| *Scores* | *Number of Pupils* |
|---|---|
| 85–89 | 2 |
| 80–84 | 5 |
| 75–79 | 4 |
| 70–74 | 6 |
| 65–69 | 3 |

etc.

[11] All names in the table are fictitious, but the data are the actual test results obtained by one class.

Sometimes only the bottom score in each interval is written and it is understood that the scores below the next higher one appearing in the table are to be recorded in the same interval. In this case, the illustration just given would appear as follows:

| *Scores* | *Number of Pupils* |
|---|---|
| 85 | 2 |
| 80 | 5 |
| 75 | 4 |
| 70 | 6 |
| 65 | 3 |

etc.

Ordinarily it is advisable to use an interval size of 2, 5, or 10, if the whole range of the scores justifies the use of one of such interval sizes, for the speed of making the distribution will be greater and the chance of mechanical error will be less than if some other size is employed, simply because we are accustomed to grouping numbers in that way. Occasionally, however, intervals of 3, 4, 7, or some other number will be preferable because of the range. As a rule, distributions containing from 10 to 20 intervals are the most practicable. If fewer than 10 intervals are used, the grouping is likely to be too coarse; if more than 20 are employed, the central tendency of the group may be obscured, although this is not always the case.

In making a distribution, of course, one must first tally the scores in the proper intervals and then count the tally marks in order to find the number of scores at each interval. Let us assume, for instance, that the following numbers represent the scores of a class of 31 pupils on an arithmetic test containing 20 problems: 13, 10, 8, 15, 11, 12, 9, 11, 14, 9, 7, 18, 10, 13, 11, 6, 12, 17, 15, 2, 8, 15, 12, 17, 11, 13, 7, 4, 16, 12, and 10. A distribution of the scores in intervals with a class size of one is shown in the next column. For a group of about 30 pupils, this simple procedure requires only two or three minutes.

If distributions are prepared for the part scores as well as the total scores yielded by a test, it is helpful to report all of them on the same sheet, particularly if the raw scores have been translated into derived scores that are comparable one part to another. Distributions of the Scaled Scores made by a class of 21 ninth-grade pupils in an independent school on the Cooperative English Test are shown in Table 2. The class is the same one that furnished the scores for the list given in Table 1.

| *Score* | *Tally* | *F (Frequency)* |
|---|---|---|
| 18 | / | 1 |
| 17 | // | 2 |
| 16 | / | 1 |
| 15 | /// | 3 |
| 14 | / | 1 |
| 13 | /// | 3 |
| 12 | //// | 4 |
| 11 | //// | 4 |
| 10 | /// | 3 |
| 9 | // | 2 |
| 8 | // | 2 |
| 7 | // | 2 |
| 6 | / | 1 |
| 5 | | 0 |
| 4 | / | 1 |
| 3 | | 0 |
| 2 | / | 1 |

N = 31

The Scaled Scores, in intervals of 2, are shown along the left-hand margin. The dotted lines across the distribution columns indicate the independent-school medians for Grades 7–12, and the broken lines show the public school medians. The median scores of the class in question are shown graphically by the short horizontal lines, and the interquartile range (the range from the 25th to the 75th percentile) of each distribution is marked off by the vertical line. The medians, quartiles, and ranges of the distributions are also stated numerically near the bottom of the page.

It is apparent that the median total English score of this ninth-grade class, 55.3, is a little above the independent school median for Grade 10. The range of total scores is wide; the lowest score is considerably below the independent school median for Grade 7 and is close to

TABLE 2.

## Cooperative English Tests, Form RX

SCHOOL: Century Day GRADE: 9 DATE: April 29, 1956

| Scaled Score | A: Mechanics of Expression | B: Effectiveness of Expression | C: Reading Comprehension | Total A + B + C |
|---|---|---|---|---|
| 80 | | | | |
| 78 | | | | |
| 76 | | | | |
| 74 | | | 1 | |
| 72 | | 1 | | 1 |
| 70 | | | | |
| 68 | | | | |
| 66 | | | | |
| 64 | 1 | 2 | 3 | 1 |
| 62 | | 4 | | 2 |
| 60 | 2 | 3 | 1 | 2 |
| 58 | 2 | 2 | 2 | 2 |
| 56 | 3 | 1 | 3 | 1 |
| 54 | 1 | | 2 | 4 |
| 52 | 2 | 1 | 1 | 1 |
| 50 | 3 | 2 | 4 | 3 |
| 48 | 3 | 1 | 2 | 2 |
| 46 | 3 | 2 | 1 | |
| 44 | | | | 1 |
| 42 | | | | |
| 40 | | 1 | | |
| 38 | | 1 | 1 | |
| 36 | 1 | | | 1 |
| 34 | | | | |
| 32 | | | | |
| 30 | | | | |
| Total | 21 | 21 | 21 | 21 |
| Q3 | 57.8 | 62.9 | 59.8 | 60.8 |
| MD | 52.5 | 59.5 | 55.5 | 55.3 |
| Q1 | 48.8 | 50.3 | 50.6 | 50.8 |
| Range | 36–64 | 39–72 | 39–74 | 37–72 |

.............. Independent School Median, Form RX

- - - - - - - - End-of-year Public School Median

the public school norm for Grade 8; the highest score, on the other hand, is about 12 Scaled Score units above the independent school median for the twelfth grade.

A study of the distributions of part scores shows that the class, as a group, tends to be a little higher in effectiveness of expression than in mechanics of expression and reading comprehension. The median mechanics score is a little lower than the median for reading comprehension. The mechanics median falls between the independent school medians for Grades 9 and 10, while the reading comprehension median is approximately at the independent school median for Grade 10.

The distributions in Table 2 could be analyzed in much more detail, but perhaps enough has been said to show that considerable helpful information about the achievement of a class may be derived from a careful study of a well-planned set of distributions.

## STATISTICAL PROCEDURES INVOLVED IN SUMMARIZING AND REPORTING THE RESULTS OF TESTS

The statistical procedures needed in summarizing and reporting test results are very simple. Anyone with a knowledge of sixth-grade arithmetic should be able to master them without difficulty. The only skills necessary are those required for the finding of medians, quartiles, and percentiles. An understanding of how to find means and standard deviations from distributions is also helpful, but not absolutely essential. The whole thing should be kept very elementary if it is to be understood by all the teachers, for in certain fields there are many teachers who are allergic to anything mathematical, but who can perform important guidance functions if they are provided with data in terms which they find meaningful.

The median may be defined as the mid-point in a distribution. If the test scores of a class are arranged in order of magnitude and if there is an odd number of pupils in the class, the median is the middle score. In a class of 33 pupils, for example, the median is the seventeenth score from either end of the distribution. If there is an even number of pupils in the class, the median is the point halfway between the two scores nearest the middle. The finding of the median by counting is thus a very simple process.

When the scores are arranged in a distribution, however, a slightly different procedure must be used, particularly if the class size is greater than one. Let us consider the distribution of scores on the usage part of one of the earlier forms of the Cooperative English Test, as shown in Table 3. Here the class size is 2. The steps in finding the median for this distribution are as follows:

1. Divide the number of pupils by 2: $\frac{35}{2} = 17.5$.

2. Start at the bottom of the distribution and add all the number of pupils in the different intervals until you reach the interval in which the median falls: $1 + 2 + 3 + 3 + 6 = 15$. The median must fall in the next interval for if the three cases in that interval were added, the total would be 18, whereas half of 35 is only 17.5. (Or one may start at the top and use a similar procedure.)

3. The interval in which the median falls includes scores 56 and 57. It is probable that two of the cases in this interval have one of these scores and one has the other, but one cannot tell from the distribution exactly what the scores are. The fairest assumption, therefore, is that the cases are distributed equally throughout the interval. Following this assumption we can compute the median by a simple numerical process. We know that after adding the cases up to the lower limit of the interval we were 2.5 cases short of 17.5. There are three cases in the interval and, as already indicated, the class size is 2. To find the median, we merely multiply 2.5 by 2, divide the product by 3, and add it to the lower limit of the interval, thus:

TABLE 3. Distribution of Scores on Usage Part of Cooperative English Test

| Scaled Score | Frequency |
|---|---|
| 80 | |
| 78 | |
| 76 | |
| 74 | 1 |
| 72 | 1 |
| 70 | 3 |
| 68 | 1 |
| 66 | 2 |
| 64 | 1 |
| 62 | 1 |
| 60 | 4 |
| 58 | 3 |
| 56 | 3 |
| 54 | 6 |
| 52 | 3 |
| 50 | 3 |
| 48 | 2 |
| 46 | 1 |
| 44 | |
| 42 | |
| 40 | |
| 38 | |
| 36 | |
| 34 | |
| 32 | |
| 30 | |

$N = 35$

$$2 \times 2.5 = 5$$

$$\frac{5}{3} = 1.7 \text{ (rounded to one decimal place)}$$

$$56.0 + 1.7 = 57.7 = \text{median}$$

Here we have assumed that the lower limit of the interval is 56.0 and that the interval runs from 56.0 to 57.9 +. From a statistical standpoint, a better assumption is that the limits of the interval are 55.5 to 57.4 +, but the reason for preferring this assumption requires a rather involved explanation which will not be taken up here. For most practical purposes, it is satisfactory to use as the lower limit of the interval the lowest whole number falling within the interval.

The whole procedure of finding the median is represented by the following formula:

$$Md = L.L. + \left(\frac{\frac{N}{2} - F\,up}{fmi}\right) h$$

Where $Md$ = median
$L.L.$ = lower limit of interval in which median falls
$N$ = number of cases
$F\,up$ = frequency number up to the interval containing the median
$fmi$ = frequency of the interval containing the median
$h$ = size of class interval

The finding of Q1, and Q3, or the 25th and 75th percentiles, involves essentially the same steps as the computation of the median. The formulas are as follows:

$$Q1 = L.L. + \left(\frac{\frac{N}{4} - F\,up}{fqi}\right) h$$

$$Q3 = L.L. + \left(\frac{\frac{3N}{4} - F\,up}{fqi}\right) h$$

Let us refer again to the distribution of scores on the usage part of the Cooperative English Test.

$$Q1 = 52.0 + \left(\frac{8.75 - 6}{3}\right) 2$$

$$= 52.0 + \left(\frac{2.75 \times 2}{3}\right)$$

$$= 52.0 + 1.8 = 53.8$$

$$Q3 = 64.0 + \left(\frac{26.25 - 26}{1}\right) 2$$

$$= 64.0 + 0.5 = 64.5$$

It is somewhat easier to begin at the top of the distribution and work downward when computing Q3. If this is done, the equation becomes:

$$Q3 = U.L. - \left(\frac{\frac{N}{4} - F\,down}{fqi}\right) h$$

$$= 66.0 - \left(\frac{8.75 - 8}{1}\right) 2$$

$$= 66.0 - 1.5 = 64.5$$

The two other measures of central tendency, in addition to the median, are the *mean* and the *mode*. The mode is the most frequent measure in a distribution. It is found by inspection. Where scores are grouped in intervals larger than one, the mode cannot be determined from the distribution, but the *modal interval* can be seen at a glance. For example, in the distribution of scores on the usage part of the Cooperative English Test, the modal interval is 54–55. If two intervals in different parts of the distribution have a greater frequency than any of the others, the distribution is said to be bimodal. The mode is not a very important measure of central tendency, but it is of some value for making a quick inventory.

The mean is simply the arithmetic average. Although it can be found from a distribution, most teachers interested in computing the mean score for a class will find it more convenient to do the work in the familiar way of adding the scores and dividing by the number of pupils, particularly if a calculating machine is available.

The last elementary statistical concept that usually is essential in the reporting of test results is the percentile rank, or percentile rating. Notwithstanding the criticism that is sometimes directed toward the statistical properties of percentiles, their simplicity has without doubt caused them to be more extensively used than any other procedure for interpreting test results.

All teachers and counselors, however far removed their own field may be from that of mathematics, can quickly grasp the idea that a pupil's percentile rating on a certain test shows the percent of the pupils in a group that he equals or excels in score—or, even more simply but slightly less accurately stated, the percent of pupils that are below him in score. It is, for example, very easy to explain to a teacher or counselor that Robert Denton's percentile for total English score, as given in Table 1, means that this boy's score on the Cooperative English Test, as a whole, is up to or above the scores of 67 percent of the independent school ninth-grade pupils who took the test. If the teacher understands further that the percentile ratings range from one to 100, and that 50 is the median or average, it should be clear to her that Robert's score is somewhat above the median for his grade.

The teacher should readily grasp the further ideas that Robert's achievement in mechanics of expression is above that of about two-fifths of the independent school ninth-

grade group, that his achievement in effectiveness of expression is much higher, surpassing that of more than four-fifths of the norm group, and that his total comprehension score exceeds that of a little more than two-thirds of the pupils at the ninth-grade level.

Various procedures are used in computing local percentile ranks from a distribution of test scores. A graphic method is favored by some persons, but perhaps the simplest procedure is one which involves the following four steps:

1. Arrange the scores in a distribution that shows every score (class size of one).
2. Find the cumulative frequency.
3. Find the reciprocal of the number of pupils in the group (divide one by the number of pupils).
4. Multiply each number in the cumulative frequency by the reciprocal.

By means of this procedure, the percentile ranks of the tops of the class intervals are found. It is usually not regarded as worth while to compute percentiles for groups containing less than 100 cases, but the general procedure may be illustrated with a smaller group. For this purpose, we will use the arithmetic scores of the class of 31 pupils mentioned earlier in the chapter.

To find the cumulative frequency, simply add up from the bottom of the distribution and write the total frequency up to, and including, each interval.

Reciprocal of 31 = 1/31 = .032258

The cumulative frequency at each interval multiplied by .032258 gives the percentile rank of the score in that interval. For example, the cumulative frequency up to and including a score of 16 is 28. 28 × .032258 = .90. Therefore the percentile rank of a score of 16 is 90.

When percentiles are found by this procedure, a percentile rating corresponding to a score shows the percent

TABLE 4. Percentiles Based on Distribution of Arithmetic Scores of One Class

| Score | Frequency | Cumulative Frequency | Percentile |
|---|---|---|---|
| 18 | 1 | 31 | 100 |
| 17 | 2 | 30 | 97 |
| 16 | 1 | 28 | 90 |
| 15 | 3 | 27 | 87 |
| 14 | 1 | 24 | 77 |
| 13 | 3 | 23 | 74 |
| 12 | 4 | 20 | 65 |
| 11 | 4 | 16 | 52 |
| 10 | 3 | 12 | 39 |
| 9 | 2 | 9 | 29 |
| 8 | 2 | 7 | 23 |
| 7 | 2 | 5 | 16 |
| 6 | 1 | 3 | 10 |
| 5 | 0 | 2 | 6 |
| 4 | 1 | 2 | 6 |
| 3 | 0 | 1 | 3 |
| 2 | 1 | 1 | 3 |
| | 31 | | |

of the scores in a distribution that are *equaled or exceeded* by that particular score.

The percentiles for all the scores on a test can be computed on a calculating machine in a very short time. It is advisable to type percentile tables for the scores on each test and to use these tables in entering the percentiles on the class lists that are to be sent to the teachers. All this applies, of course, to the computation of local percentiles and may not be necessary in the case of well-standardized tests for which national norms are available. Many test publishers and service agencies now supply complete percentile norms for defined groups on a variety of tests.

CHAPTER XI

# *Use of Results of Objective Tests in Improving the Instructional and Counseling Program of the School*

## ADMINISTRATIVE AND SUPERVISORY USES OF TESTS

THE RESULTS OF TESTS MAY BE USED IN MANY different ways. Some of the common uses are mainly administrative and supervisory, rather than for purposes of diagnosis, instruction, or counseling. A detailed discussion of the administrative and supervisory uses of tests is outside the scope of this book but it will perhaps be desirable to enumerate and comment briefly upon some of them. Two types of uses which are closely related to the administration of the school will be discussed in Chapters XIII and XIV. These are the uses of tests in permanent and cumulative school records of pupil progress and in reports to parents.

Another administrative use of tests is in the classification, grouping, and placement of pupils (36). Tests are employed widely in the classification and placement of new pupils at levels conforming to their ability, and this kind of use will no doubt increase as the tendency to promote on the basis of time served is gradually abandoned. Tests form one of the main bases for the grouping or sectioning of classes studying the same subject in a given school.

A fourth administrative use of tests is in the modification of programs of study of individual pupils. Tests may sometimes show the inadvisability of trying to have individual pupils proceed beyond a certain level in a field of study. For example, a pupil with a percentile rating of 2 in mathematical aptitude can scarcely be expected to profit from the study of higher mathematics. In similar fashion, tests may show that a pupil has unusual ability in a certain field and may lead to the modification of his program to permit him to take advantage of that ability.

A fifth use of test results which has both administrative and supervisory relationships is the evaluation of methods and materials of instruction. A school may, for instance, wish to experiment with conventional and with freer methods in the teaching of social studies and to evaluate the results. Or, it may desire to compare the achievement obtained with different textbooks, or with a certain textbook as contrasted with extensive reading materials not confined to any one book. The cautious use of tests in these ways is legitimate provided all possible influences on the test results are carefully considered and weighed.

Tests may, in the sixth place, serve administrative and supervisory functions by forming an objective basis for suggestions concerning the instruction of individual pupils. For instance, a high school principal, through an analysis of the results of a reading test, may note that certain individuals are very low in general reading

achievement and he may suggest to the English department that the teachers consider what can be done to improve their reading skill.

In addition to these commonly accepted uses of tests, some schools have occasionally employed the results of tests in ways that are of questionable value. For example, administrators and supervisors have sometimes used test results to rate the proficiency of their teachers. Unless all other factors which help to determine test scores are carefully controlled, such uses may result in marked injustice to individual teachers. Among the factors which influence test results are the chronological age of the pupils; their brightness and the number of years of schooling they have had; their individual rate of growth; the school, departmental, and course objectives; the content of the courses; the methods of instruction employed in the school; the effort put forth by the pupils both in their school work and in the taking of the tests; the amount of experience that the pupils have had in taking tests; and the psychological and physical conditions under which the tests were administered. Any one of these factors may have a more potent influence upon the results of the tests of a given class than the teaching ability of the instructor. For instance, in the instruction of an algebra class that has a median intelligence quotient of 90, it is doubtful if even an extremely able teacher could bring their median algebra test score up to the national average. Since it is practically impossible to control all the other factors in the usual school situation, the use of test results for rating teachers is seldom advisable. In fact, it is not too much to say that this practice is the most pernicious use of testing that is ever made in our schools and that it has done more than anything else to retard the legitimate uses of tests in the study of individuals.

Another common administrative use of test results is the comparison of median scores in the local school with norms that have been established by giving the tests in a large number of other schools. This is a defensible use, if the findings are interpreted with caution and understanding. It should be remembered that the failure of school averages to reach national averages may not indicate inferior instruction. It may be the result of somewhat lower scholastic aptitude in the local school than in the schools from which the norms were derived; it may indicate that the school has made new and valuable innovations in its curriculum that are not measured by the tests; or it may be due to any of several other factors. The school, therefore, should strive to determine in the light of local conditions the meaning of the deviation from norms rather than to assume that high or low average scores are indicative of superior or inferior work on the part of either teachers or pupils.

## INSTRUCTIONAL USES OF TESTS

### MAIN USES OF TEST RESULTS BY THE TEACHER

In the meeting of individual and group needs and abilities, teachers may use test results in the following valuable ways: (1) discovering the scholastic aptitudes of the pupils and adapting instruction to their individual levels of aptitude; (2) knowing in detail the cumulative achievement record and the achievement status of each pupil, and guiding him in the development of all types of achievement in the school curriculum which are in line with his abilities; (3) discovering the exceptionally bright or high-achieving pupils and making special provision for them; and (4) diagnosing individual pupil weaknesses and abilities in the different subjects and giving remedial treatment based on the diagnosis.

It should be noted that there is a distinction between the use of test results as aids to instruction and the use of the tests themselves as goals of instruction. The uses just listed are those in which the findings resulting from tests become aids to instruction by enabling the teacher to analyze pupil achievement and to discover those aspects in which each pupil is superior and those points in which he needs special help. Such uses are unquestionably sound, for they lend definiteness and purposefulness to teaching. If, however, the content of the tests used in surveying or diagnosing achievement becomes in itself a teaching goal, the practice may be a hindrance to the development of a program of instruction based on a fundamental philosophy, and it will unquestionably tend to invalidate future measurements with the same or similar tests. The danger that tests will in fact become goals of instruction has often been cited in the past as a reason for not adopting achievement tests, and it is still an important deterrent to their wider use.

### PRINCIPLES GOVERNING THE USE OF OBJECTIVE TESTS IN DIAGNOSIS AND INSTRUCTION

When utilizing test results in diagnosing pupil difficulties and in planning special help to meet the needs indicated by the tests and other evidence, teachers and counselors would do well to keep the following points in mind:

1. *Test results are valuable in the degree to which constructive use is made of them in securing improved educational and vocational adjustment and distribution.* They are useful only if someone does some thinking about them and interprets the standing of individuals and groups with reference both to national or local norms and to the past performance and future plans of these same individuals and groups. If the school is going to

realize the potential values of its testing program, it is practically imperative that someone who understands not only the fundamental philosophy or purposes of the school but also the basic philosophy of measurement and guidance, and who is acquainted with the elementary statistical techniques utilized in educational measurement, and who understands the legitimate uses and limitations of individual tests, be assigned the major responsibility for the testing and guidance program and remedial work.

2. *As far as possible, tests should be employed which measure the achievement of the pupils with respect to the purposes of the individual school using the tests.* Since a considerable number of the objectives of most schools are implied rather than expressly stated, the testing program should rarely be restricted to the consciously emphasized local objectives of a school, but it is very important to know the status of the pupils and their rate of growth in relation to purposes which the school does have in mind and for which it is striving. No test, or combination of tests, will measure every attainment a school desires for its pupils, but through wise use of standardized and locally made tests most of its more important objectives can be evaluated.

3. *No test is infallible.* The best test ever made is not perfectly reliable—that is, if the test were repeated under identical conditions, it is highly improbable that every pupil would make exactly the same score he made before or would maintain precisely the same position in the group of pupils tested. Human nature is, moreover, variable, and an occasional pupil's test score may fail by a wide margin to reveal his true ability or achievement because of obscure psychological factors over which the examiner may have no control and of which he may be unaware. It is, therefore, highly important that a school, in making any major decision about the achievement of a pupil, utilize the results of more than one test of a particular kind, as well as all other available information. In selecting pupils for special remedial work in reading, for example, it is wise to use at least two, and preferably three or more, reading tests. An even better procedure is to test the various basic skills at yearly intervals and to keep a record of the results in comparable units. In this way not only status at any given time but extent and rate of growth over a period of several years can be found. This enables the school to discover readily and to analyze marked changes in the progress of any given pupil.

4. *Achievement in a particular subject usually bears a close functional relationship to general intelligence.* Dependable diagnostic work in any subject almost always calls for the use of a good test of mental ability along with the achievement test results. Other things being equal, an individual test, such as the Stanford-Binet scale or the Wechsler-Bellevue scale, is to be preferred. If a school does not have the facilities for individual mental testing, however, such group tests as the Otis Self-Administering, the Kuhlmann-Anderson, and the American Council Psychological, which correlate rather highly with individual measures, may be used, preferably at intervals of one year or one semester.

5. *Intelligence tests involving language are not highly valid measuring instruments for pupils who have language difficulties.* For instance, if retarded readers are given a group test of mental ability calling for a considerable amount of reading, the results are ambiguous because it is uncertain whether low scores indicate low intelligence or undeveloped reading ability. It is evident, therefore, that conclusions about the mental ability of such pupils should be held in abeyance until the results have been checked by an individual mental test or a nonlanguage intelligence test.

6. *Scores on all intelligence and achievement tests are influenced, to some extent, by practice.* In other words, the second time a pupil takes a test he will probably do a little better than he did the first time, merely because he will have had experience with the test and will be familiar with its general form. This will be true even though the content may be varied through the use of a different form of the test. Because of the effect of practice, a pupil to whom the tests are new is under a certain handicap in comparison with pupils to whom the tests are familiar, and a single low score by such a pupil should be regarded as inconclusive evidence that he is really inferior in the ability or skill measured by the test to the extent indicated by his score.

7. *The real cause of a disability may be far removed from the disability as revealed by a test.* A language handicap, for example, may be the result of lack of emotional balance rather than of low learning capacity. Hasty conclusions concerning the reasons for low scores should be avoided, and the assembling and careful analysis of a variety of information about each pupil should be a regular practice. In some instances the advice of medical or psychiatric experts may be imperative for accurate and adequate diagnosis, but the collection of many facts about study habits and personality traits and the consideration of these facts in relation to scholastic performance can be done effectively by the school staff itself.

## GENERAL PROCEDURES IN DIAGNOSTIC AND INSTRUCTIONAL USES OF TESTS

Although methods of diagnosis and instruction naturally vary considerably from subject to subject, there are certain elements in the general procedure which are com-

mon to all tool subjects. Regardless of what he is teaching, the teacher who expects to diagnose the difficulties of his pupils and to provide suitable instruction to meet these difficulties will need to go through most of the steps suggested in the following paragraphs:

1. It is sometimes possible for an instructor to make an educational diagnosis with some degree of success without using any measuring instruments whatsoever, just as it is possible for a physician occasionally to diagnose correctly the ills of a patient without utilizing any of the instruments peculiar to his profession. Diagnostic work is unquestionably much more accurate, however, when its basis includes objective data. The first step, therefore, in diagnosis is *to give a suitable test to all the pupils.*

This first step is often cared for in the regular testing program of the school. If, for example, a school participates extensively in the testing programs of the Educational Records Bureau, it will in all probability administer at regular intervals at least one test in each of the basic tool subjects.

Achievement tests are often divided into two general types: *survey and diagnostic.* The main difference between these two types lies in the method of scoring. A survey test ordinarily results only in a total score, or, at most, scores in a few of the larger, grosser features of a pupil's achievement in a subject, whereas a diagnostic test not only yields a total score but also shows achievement with respect to specific elements of the subject. These two types may be illustrated by reference to reading tests. The Nelson-Denny Reading Test may be regarded as a survey test, since it provides only a score for vocabulary and a score for comprehension in addition to a total score; the Iowa Silent Reading Test, on the other hand, has apparent diagnostic features, for it yields scores in rate, comprehension, directed reading, poetry comprehension, word meaning (social science, natural science, mathematics, and English), sentence meaning, paragraph comprehension, and location of information, including use of the index and selection of key words.

Both survey tests and diagnostic tests have important functions in measurement. Survey tests are often used as the initial step to identify the pupils who need diagnosis; they can, in fact, be used in diagnosis if the teacher will take the trouble to tabulate and classify the kinds of errors made by individual pupils. Diagnostic tests are highly useful in locating specific weaknesses, especially when followed by interviews with pupils about the parts which gave them difficulty. Some schools use the procedure of giving a survey test in a subject and following it with a diagnostic test for the pupils who make low scores on the survey test. Other schools prefer to use diagnostic tests with all their pupils in the subjects in which such tests are readily available. Diagnostic tests usually take more time than survey tests. In a regular testing program conducted on an annual or semiannual basis, it is ordinary desirable to use some tests of each type, as the exclusive use of diagnostic tests would involve more time than most schools would wish to give to testing.

2. After the test data have been assembled in convenient form, the next step is *to study the data carefully* in relation to all available information from other sources. This often entails not only an inspection of the test scores but a careful perusal of the test papers as well. This step should be carried on by the teacher. Detailed diagnosis is excellent preparation for corrective and remedial teaching, for in this way the teacher acquires a familiarity with the difficulties of her pupils that she could get in probably no other manner.

Study of the data will probably reveal at least five groups of pupils: (1) a few pupils whose achievement is very high (percentile of 90 or better for their grade level) on all parts of the test and who may possibly be excused, after their cases have been carefully scrutinized, from some of the routine aspects of the class work in order that they may use their time to better advantage in the development of special abilities and interests; (2) pupils whose achievement is as high as can be expected in view of their scholastic aptitude and their cumulative record of achievement in the subject measured by the test, and who apparently need no other teaching than that which is provided in the regular developmental program of the school; (3) pupils whose achievement in the various aspects of the subject or skill is so uneven that they apparently need special help in certain phases but not in others; (4) pupils who are somewhat low in all parts of the test, but whose difficulties can probably be corrected by group teaching; and (5) pupils who are so seriously handicapped that their cases demand individual attention. The proportions of pupils falling into the different groups will of course vary with the school and with the subject. Some schools follow the practice of giving remedial training in reading and other tool subjects to the lowest one-fourth of their pupils, regardless of how they stand with respect to national norms.

The teacher in discovering the pupils who need remedial help should avoid by all means the naïve assumption that a given grade norm for a test is necessarily an acceptable standard of achievement for all pupils in the grade. A moment's consideration will show that, in fact, the norm may not be a suitable achievement standard for any of the pupils. It is, at best, an average score of a widely distributed school population of that grade level. If the pupils used in establishing the norm happen to be, in general, rather low in achievement, their average score will probably represent an achievement level that is by

no means acceptable for schools in general. On the other hand, selection of superior pupils or differences in emphasis on various aspects of the curriculum may lead to the establishment of norms that are practically unattainable for pupils in certain schools.

Whether or not the grade norm for a test is a suitable standard for average pupils in the group, it is certainly not a desirable standard for exceptionally able pupils or pupils with limited aptitude. Superior pupils may justifiably be regarded as remedial cases if they fall as low as the norm in achievement, whereas some pupils of low ability should never be forced to try to reach the norm. Each pupil must be considered individually in the light of all the evidence at hand. In some subjects, the interests and life ambitions of the pupils must be taken into consideration when making decisions about remedial work. In selecting pupils for remedial work in the *tool* subjects, however, interests and professional or vocational aptitudes of individuals are not so important, for a certain minimum level of skill is required of every pupil in order that he may be able to function successfully in adult life.

In deciding on some of the doubtful cases, the teacher will find it very helpful, if time permits, to retest the pupils individually while she observes their methods of work and perhaps to have them do certain sections of the test aloud. This method has been found particularly useful in diagnosing arithmetic difficulties. (6). The teacher will also find it advantageous to check her diagnosis with the opinions of other teachers of the pupil and with teachers who have had the pupil in preceding years, if these can be secured. When cumulative records of the type recommended by the American Council on Education are kept, it will be much easier and more convenient to study the previous history of the pupil.

3. The third step in the diagnostic and instructional uses of tests is *to set up procedures for the teaching that is needed.* The procedures will, of course, vary greatly with the subject, but some features are similar in all subjects. The first two groups listed in the preceding step do not require special teaching. The pupils in the third group—those low in one or two aspects but up to acceptable achievement for their grade level in the others—may be taught individually or in small groups of pupils with like deficiencies, or they may be brought into the fourth group at appropriate points. The corrective teaching of the pupils in the fourth group can be mainly group instruction, but the individual needs of the pupils should not be neglected. It has usually been found that the most effective plan is to organize the group as a regular class which is an integral part of the curriculum, but if this is not feasible the group may be met at study periods or other convenient times. The instruction of the pupils in the fifth group will necessarily be organized for individual teaching or work in very small groups.

4. Before the instruction is begun, *the school should make sure that there is an adequate record of the achievement status of the pupils near the time the teaching is started,* so that their progress during the teaching may be measured accurately. Ordinarily the test, or tests, used as a basis of diagnosis will provide this record. If a considerable time elapses between the original measurement and the beginning of the remedial work (if, for example, a test in English usage administered in the spring forms the background for setting up a remedial program in English the following autumn) it is probable that the pupils who were selected for the remedial teaching should be retested shortly before the beginning of the remedial program. Comparable forms of the test will be needed, of course, if this procedure is followed.

5. The next step is to launch the program of instruction according to a plan that is carefully thought out, yet flexible enough to be modified, if necessary, as the work progresses. A general rule in all remedial and corrective work is that *the teaching should be directed toward the specific difficulties experienced by the pupils.* This means that the diagnosis should be made as definite and detailed as possible. It also means that the teacher must keep the details of the diagnosis in mind in her instruction. Since the needs of the pupils will vary, the work must be highly individualized. Teachers with limited experience in remedial teaching will find some of the better workbook material a distinct aid in individualizing instruction.[1]

Care should be taken to avoid goals that are really beyond the ability of the student. Continued driving, after the pupil has reached the limit of his ability, may be positively harmful. Remedial work must not be allowed to become disguised coercion.

In connection with the remedial teaching, the instructor should remember that environmental factors, both in and out of school, may contribute to the learning difficulties of the various pupils, and he should be alert to opportunities to discover and help relieve maladjustments of this kind. In other words, diagnosis is not something that is finished before instruction begins but is a continuing process.

The teacher should keep in mind, too, that the root of the difficulty of an individual pupil may be in a faulty mental attitude toward the school or toward the particular subject in which the remedial instruction is being given. Reading cases, for example, are sometimes of this

[1] For lists of such material, see Educational Records Bulletin 18, *The Use of Test Results in Diagnosis and Instruction in the Tool Subjects,* 2d rev. New York: Educational Records Bureau, 1949. Pp. vi + 82.

sort. No real disability is involved, but the pupil is simply interested in other activities to the exclusion of reading and has, therefore, not developed facility in it. The remedy obviously lies in bringing about a changed attitude on the part of the learner.

Pupils of high mental ability who encounter learning difficulties and become remedial cases need a different type of instruction from pupils of low mental ability. Considerable repetition is needed in giving remedial instruction to dull pupils, whereas bright pupils may find repetition so deadening to their interest that they may make little or no improvement. Remedial instruction is most effective with pupils who are above average in intelligence if they are encouraged to make a self-diagnosis of their difficulties and to initiate their own attack under guidance on the solution of their learning problems. At all levels of ability, progress is more rapid if pupils have an opportunity to measure their status at regular intervals and to keep an individual cumulative record of growth.

6. It is desirable to test the pupils a few weeks after the beginning of the teaching with a comparable form of the test used before the teaching was undertaken in order to find out if the methods in use are producing results. If there are enough forms of the test, retesting at intervals is very helpful. It aids the teacher in planning her remedial program and enables her to release pupils who no longer need the training. Evidence of progress also encourages the pupils and spurs them on to greater effort. Even if a different test is used and national norms are not available, the relative positions of students can be determined and their response to training noted. *A form of the test originally used should be given, by all means, at the conclusion of the period of teaching, to measure gains.* It is only by careful measurement of progress made under different methods of teaching, that the various remedial methods can be properly evaluated. A test should also be administered several months later to measure the permanence of improvement and to find the pupils who still need special help.

7. When the results of the test given at the conclusion of the group instruction have been analyzed, the pupils who are up to the goals originally set as desirable and possible should be released from further remedial training of this kind, but should probably be kept under observation for a time. Those who have made progress in relation to what may be expected but are still somewhat low will require further group instruction, perhaps at less frequent intervals and in certain special aspects. *The pupils who have failed to gain should be scheduled for intensive individual instruction.* Such instruction, in order to be successful, may require case study, diagnosis, and supervision of treatment by a psychologist.

### THE USE OF THE RESULTS OF TESTS IN PROVIDING FOR PUPILS OF HIGH ABILITY

If test scores indicate that the bright pupils have already mastered much of the work planned for a given grade, this fact should frequently lead to an enriched program for them. Another way of taking care of the needs of these pupils is to excuse them from aspects of the work in which they test very high in order that they may do advanced work in keeping with their interests and special abilities. A ninth-grade pupil who reaches the 95th percentile for twelfth-grade pupils on the Mechanics of Expression part of the Cooperative English Test may be excused, for example, from formal participation in those activities of the English class designed to train pupils in correct usage, and may be permitted to give his time under guidance to more advanced work in English or to some other phase of his school program in which he has special interest and in which he has the capacity for independent study. Special promotions or other procedures for accelerating the rate of progress through school are also a way of taking care of pupils whose test records are exceptionally high. Procedures for acceleration were brought to the foreground during World War II because of the educational demands related to the war effort.

## USE OF TEST RESULTS IN COUNSELING

The uses of test results in counseling are conditioned by the guidance functions which are carried on in each school. Although these vary considerably from one school to another, there are a number of activities which seem to be common to most guidance programs.

One function of guidance is to *identify weaknesses of individual pupils* and provide for long-time study and treatment. This function is related to those of diagnosis and instruction discussed in the preceding section but, considered as an aspect of guidance, it implies the follow-up of a pupil over a longer period than is usually possible in connection with the work of a single class.

Tests may be used effectively for this purpose. For example, one can follow the case of a pupil who has a deficiency in mathematics and note year after year the changes in score and percentile rank that have resulted from different kinds of treatment. The prediction of the later success of the individual depends not alone on what his achievement is today but also on what it was last year and the year before, and the year before that. The prognosis for a pupil whose standing was low at high

school entrance but who has managed to come up to average by the end of the secondary school may be better than that for the pupil who has maintained an average record throughout the secondary school grades.

A second function of guidance is to *discover special abilities* that should be developed. If there is sufficient variety in the tests used, one not infrequently finds that a pupil handicapped in the academic subjects has marked ability in some other area. Tests of clerical and mechanical ability, for instance, are valuable supplements to tests in the academic subjects. The discovery and development of exceptional ability is of great importance for the benefit of society generally as well as for that of the individual pupil.

A third function of guidance officers is to *confer with pupils* from time to time *about achievement.* Such conferences are much more meaningful if the counselor is able to present objective evidence to the pupils. There is no better way to encourage a hard-working pupil than to show him how much he has increased his test scores. Also, there is no more convincing evidence with which to arouse pupils who are not working up to capacity than to show them the decline in their percentile ratings or to compare their achievement test percentiles with their percentiles for academic aptitude. In the latter type of comparison, however, the counselor should be aware that, because of the imperfect correlation between aptitude and achievement, a pupil with exceptionally high academic aptitude percentiles cannot be expected consistently to maintain quite as high percentiles in all aspects of achievement.

A fourth and closely related function of guidance counselors is to *confer with certain pupils about problems of adjustment.* For this purpose, the results of tests of personality, attitude, and interests may sometimes be used to advantage. The scores on such tests may not be reliable enough to be given much weight in the total record of the pupil, but the responses to specific items are very valuable in interviews. An individual's aptitude and achievement scores are also useful in interviews of this kind, and they should be scrutinized closely in cases of maladjustment that may grow out of inability to do the required work of certain classes.

A fifth function of personnel officers in a guidance program is *to confer with parents about the ability, achievement, growth, and school adjustment of their children.* Tests have potential values that few schools, even those with extensive guidance programs, have fully realized. Parents are naturally keenly interested in the test scores of their children and are usually glad to have an opportunity to study objective, impartial evidence concerning ability, achievement, and special apitudes. One technique that is sometimes employed is to give a general explanation of the meaning of test records to groups of parents and to invite them to visit the office of the staff member in charge of testing for a more detailed explanation based on the records of their own child. A helpful report on this use of test results and other types of recorded material was made available by Hilkert (*19*).

A sixth function of counselors is to *guide pupils into or away from certain courses* and thus to reduce failure through careful planning based on available evidence. A function similar to this one was mentioned earlier in this chapter in connection with administration, but it is as much a counseling function as an administrative one. Tests can be used extensively in this kind of guidance. Assume that a test yields just two scores, verbal and mathematical, and that a certain pupil has a high percentile rating in the former and a low percentile rating in the latter. These data provide some evidence for guiding the pupil into linguistic subjects and away from mathematical ones. Whereas the scores on one test alone cannot be used with perfect assurance as a basis for action, the piling up of evidence from several tests over a period of two or three years may be so strong that the guidance to be given a pupil in the choice of a field of specialization will be indicated beyond reasonable doubt.

A seventh guidance function is to *help pupils and parents make plans for the pupils' careers after graduation.* This includes advice concerning whether or not the pupil should attend college, assistance in selecting a suitable college, and help in choosing a vocation. Pupils whose public school percentile ratings on academic aptitude and achievement tests are consistently above 50 usually can do successful work in the better colleges, whereas those whose percentile ratings generally fall below the median should be steered away from the more selective colleges or perhaps advised to go directly into an occupation without attempting to enter college. Pupils considering the most highly selective colleges probably should have percentiles above 75 on public school norms.

Ambitious but dull pupils are sometimes much upset emotionally if at the end of their secondary school course they are suddenly confronted with the knowledge that they cannot expect to succeed in college or that they must be content with attendance at some minor college rather than an outstanding college which they had hoped to attend. However, if achievement test scores are available for each pupil throughout the secondary school and if these are shown regularly to parents and pupils with an explanation of their meaning, a low-ranking pupil will gradually become aware of and come to accept the fact that his abilities are of a different type from those of academically successful students. Thus, on the basis of

this impartial evidence, there is an opportunity to make adjustment to a nonacademic career by easy stages.

The results of vocational interest tests as well as the scores on academic aptitude and achievement tests are useful in helping pupils to choose a career. The results of interest tests should be very carefully interpreted, however, and it should be made clear to the pupil and his parents that these tests do not measure *ability* for different vocations nor show whether or not the individual will be *successful* in a particular vocation.

An eighth function of counselors is to *confer with teachers about individual pupils.* One of the most important aspects of guidance is adjustment, and it is obvious that adjustment between pupils and teachers will be better if each teacher understands the abilities and limitations of the various pupils in his classes. The test scores are valuable both for conferences between counselors and individual teachers, and for staff clinics in which groups of teachers study the problems of different pupils and decide on treatment for their difficulties. One of the essential elements of every testing program is a continuous program of educating teachers in the use of test results. Regardless of how a school's testing program is organized or how many counselors it has, its classroom teachers will do much of the actual guidance work, and the value of tests is almost directly proportional to the interest of the teachers in them and their understanding of the results.

Another function of both counselors and teachers is to *make case studies of certain pupils.* The case study is one of the most useful techniques in a guidance program. Not only is it valuable in personnel work with the pupils, but it is an effective way of educating teachers in guidance procedures. The backbone of any case study is evaluation. Tests are needed at the beginning of a study to help determine the nature and degree of the problem which initiated the study, during treatment to measure progress and to redirect training, and at the end to determine the gains made and to indicate what still remains to be done. This function is discussed in detail in Chapter XV.

A tenth guidance function, particularly in college preparatory schools, is to *aid in decisions concerning when pupils are ready to take end examinations,* such as those of the College Entrance Examination Board. Although the correlation between scores on objective tests used in the regular program of the school and the results of examinations of the type prepared by the College Board is by no means perfect, there is substantial agreement between them. Even when the College Board tests were mainly of the essay type, a study reported by the Educational Records Bureau some years ago indicated that the average correlation between these two types of tests was .67 as compared with a correlation of .63 between school marks and College Board examinations (35). The use of cumulative test records to help decide when students are ready for end examinations is a practical application of tests to guidance and is one that some schools are finding worth while.

The last function of guidance officers which will be mentioned here is to *make reports to colleges and prospective employers.* As already indicated, test results are valuable in reports of both kinds. Test records, together with an appropriate explanation, have been accepted as an integral part of the reports which are sent with the pupil when he is graduated. This is evidenced by the fact that nearly every up-to-date report or transfer form now has space for test results expressed in meaningful, nontechnical terms, such as percentiles. It is true that these records are not always understood by the institutions to which they are sent, but it is also true that they are much more generally understood than they were in earlier years.

## LIMITATIONS TO THE USE OF TESTS IN INSTRUCTIONAL AND GUIDANCE PROGRAMS

Although testing is being used in numerous ways, there are several limitations which restrict the extent and precision of the use of test results. Some tests do not agree very well with the objectives in the organization of modern courses; that is, they do not provide valid measurement of the curriculum with which they are used. No test is perfectly reliable, and there is always a certain amount of sampling error in even the best test administered under ideal conditions. Users of tests sometimes allow themselves to be misled by the labels or names attached to the tests. For example, if one test is called an intelligence test and another is called an achievement test, there is a tendency for users to feel that tests measure very different things, even when their content is such that there is obviously a great deal of similarity between them. Unless counselors and teachers are aware of these pitfalls, their interpretations of test results are likely to be erroneous.

Probably the most serious limitation to the use of tests in instruction and guidance—and this is particularly true of some of the most promising of the newer tests—is that in many cases no one, not even the test expert, knows just what the relationship of the test data is to future success in various fields. Some tests yield scores, for instance, for such mental traits as verbal, number, space, memory, and reasoning factors. The scores on such tests

have a potential value that is very great, but their present usefulness is limited by the fact that we need more information about what the scores mean in terms of the future accomplishment of the individual. The fact that the scores on so many tests cannot be adequately explained in terms of outcomes has caused some persons to become considerably discouraged over the possibility of effective use of tests in guidance. This tendency to be skeptical of the guidance values of some of the newer tests grows out of the knowledge that quantitative test results are really useful for guidance purposes only when they can be expressed in meaningful everyday terms and thus enable one to make a valid qualitative appraisal of the individual and to predict his success in qualitative terms.

## HOW TO IMPROVE THE USEFULNESS OF TESTS

The lack of complete understanding of the scores obtained from tests should not lead to loss of faith in these devices, for at the present stage of measurement work, when new tests are appearing frequently, a paucity of consequential data is to be expected. Although some of the objective tests of aptitude and achievement have been in use for about a generation, most of the better tests have been prepared within the last 15 years, and several of the more promising tests have been made available within the last five or six years. Research is the only means by which the prognostic nature of a test can be adequately investigated, but research techniques are often slow and expensive and not enough time has elapsed since the publication of the majority of the good tests for research to discover their relationships to fundamental long-time objectives. It is encouraging to discover that test specialists are showing an increasing awareness of the need for information on the relationship between test data and guidance outcomes and are beginning to take steps to join forces in attacking the problem.

Personnel workers in schools, however, cannot wait until research with tests has supplied answers to many of their questions, for they must meet today the problems of guiding their present students. Nor is it necessary for them to wait, for they can read a great deal of meaning into the scores on the basis of their own experience. For example, the counselors and teachers in a large number of schools have discovered, through their experience with the Cooperative Achievement Tests, critical scores on these tests with respect to success in different colleges. Thus, in a sense, personnel workers faced with the practical job of counseling students from day to day are not infrequently going ahead of the test specialists in discovering the meaning and use of the test results in their own particular situation.

Many publications designed to help administrators, teachers, and counselors make better use of test results are available. Some of these are listed in the references at the end of this chapter. In addition, various schools are preparing their own materials on testing and the use of test results for faculty in-service training. For example, the Great Neck, N.Y., Public Schools (Fred S. Brown, Director of Testing) have issued some excellent materials for the guidance of their faculty in the interpretation and use of test results and in the preparation of classroom tests. These include *The Testing Program of the Great Neck Public Schools: A Manual Designed to Give Staff Members Information Concerning the Testing Program,* 1953; *Manual of Test Construction,* 1954; and *Manual of Item Analysis,* 1955. Locally prepared materials of these kinds are particularly helpful because they can be closely related to the school's own testing and guidance program and can be written so that they will take account of the level of understanding of the faculty in this field.

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CHAPTER XII

# *Basic Principles and Main Types of Pupil Personnel Records*

## SOME BASIC PRINCIPLES

The term "personnel records," as used here, includes all the records of the school that are employed in recording information about individual pupils. It does not include financial and business records, or records and reports that deal with groups rather than with individuals.

According to this definition, certain individual school records, such as the school census and attendance data, which are kept partly for purposes of making group summaries, may logically be regarded as personnel records. Records of this sort, however, will not be included in this discussion. The emphasis will be upon records that are maintained for the purpose of facilitating the guidance of each individual pupil.

We are still in a period of transition from haphazard record systems that "just grew" in different schools to systems carefully planned in the light of a study of the conditions and need of each school. A century and a half ago few schools kept any records at all. Largely through the efforts of Horace Mann, the Daily Register was introduced into the schools of Massachusetts in the 1830's and its use gradually spread throughout the country. This one record book, which consists largely of a record of attendance and promotion, continues even to the present day to be practically the sole recording device in many rural schools. As the complexity of urban schools has increased, additional office records and records for transfer of pupil information from department to department, from school to school, and from school system to school system, perforce have been devised. Many of these record forms have grown up without definite plan or coordination and without relationship to records used in other places. So great is the diversity in personnel record systems that the efforts of regional associations and other organizations to bring some order out of the chaos have, in general, met with indifferent success.

Some persons, after examining the poorly planned and unwieldy record systems in vogue in many schools, have been inclined to take a very pessimistic view of the possibility of getting the general rank and file of schools to build efficient and significant personnel records. But anyone who tends to despair over the situation may find considerable solace in a comparison of the present personnel records of any school with the kind that were possible, for instance, 200 years ago. For example, in his *History of Education,* Cubberley[1] has reported in detail a record that was kept by a Prussian schoolmaster about 1750. This schoolmaster, one Hauberle by name, "with characteristic Teutonic attention to details, has left on record that, in the course of his 51 years and 7 months as a teacher he had, by a moderate computation, given 911,527 blows with a cane, 124,010 blows with a rod, 20,989 blows and raps with a ruler, 136,715 blows with the hand, 10,235 blows over the mouth, 7,905 boxes on the ear, 1,115,800 raps on the head, and 22,763 *notabenes* with the Bible, Catechism, singing book, and grammar. He had 777 times made boys kneel on peas, 613 times on a triangular piece of wood, had made 3001 wear the jackass, and 1707 hold the rod up, not to mention various more unusual punishments he had contrived on the spur of the occasion. Of the blows with the cane, 800,000 were for Latin words; of the rod 76,000 were for texts from the Bible or verses from the singing book. He also had about 3,000 expressions to scold with, two-thirds of which were native to the German tongue and the remainder his invention."

[1] Ellwood P. Cubberley. *The History of Education,* pp. 455–456. Boston: Houghton Mifflin Company, 1920. Pp. xxiv + 849.

In contrast to this recital of items which two centuries ago were regarded as important in the guidance of pupils, even the most archaic of personnel records now in use seem fairly valuable. The great need at present is to improve the scope, reliability, and organization of the information collected and recorded about pupils and to train teachers in the intelligent use of this information. The recognition of a number of basic principles should give important impetus to the realization of this goal.

1. *A comprehensive and detailed system of cumulative personnel records is indispensable for the proper functioning of the modern school.* From earliest colonial times down to the beginning of the twentieth century, our schools were mainly rural and village schools. Furthermore, the great majority of the pupils were enrolled in eight-grade elementary schools. This situation had a definite effect on pupil-teacher relationships and on the opportunity for intelligent instruction and guidance, for it was inevitable that the teacher and his pupils should be intimately acquainted. Pupils were often under the same teacher for several years, not merely in one subject, but in all aspects of the life of the school. The contacts of pupils and teacher extended beyond the school, for the teacher knew each pupil in out-of-school relationships. He was in all probability a friend of the pupils' parents. He visited, and sometimes boarded for long periods of time, in each home. The teacher needed no written case history for his pupils. He carried in his mind the history of every one of them. This is not to say that *written* objective records would not have aided the teacher in his work with the pupils. They would have been useful, but they were not indispensable. So he got along either with no permanent records or with the daily register, which was mainly a record of attendance and promotions.

There were secondary schools consisting first of the Latin grammar schools, later of the academies, and finally of the public high schools, but they were small and tended to be selective. The curricula were limited in scope and the pupils were for the most part those who were getting ready for colleges and professional schools. There was little need, therefore, for either educational or vocational guidance.

With the rapid development of junior and senior high schools during the present century and with the tendency toward departmentalization even in the elementary school, this homely, intimate picture of the school has changed. Departmentalization contributes to the efficiency of instruction even in a small school but as soon as a school has departments, it has teachers seeing only segments of the development of boys and girls. The teacher knows the pupil as a student of English, or a student of mathematics, or as a football player, but he rarely knows the whole individual.

When to this situation there is added another twentieth century influence—namely, the influx of huge numbers of pupils of all economic and ability levels into the schools—there comes into existence a great metropolitan high school, with perhaps 200 teachers and from 5000 to 10,000 pupils. Each teacher may meet some 200 pupils in groups of perhaps 40 an hour a day for one semester, and then receive an entirely new crowd. The only way of establishing an adequate basis for teacher participation in guidance is to pool the various isolated bits of information that are gleaned by the different persons who have contact with each pupil and to bring them together into one composite picture.

But, one may inquire, when these many items are brought together and put down cumulatively on a record card, does this procedure actually result in a picture of the pupil? When dealing with personality, is not the whole greater than the sum of its parts? The answer is, yes, that is true, but the saving feature of the whole plan is the power of synthesis that is inherent in the human mind. When one takes a long-time cumulative record which has been filled out in detail and studies it with the understanding that comes from experience with such records, one does not get just an impression of a series of details—he has an impression of unity. *One relates a dozen different items and has something new,* an understanding of personality that is not down on the card but is a result of his ability to assimilate a group of facts and to abstract a generalization. Some persons who insist that guidance must be based on an understanding of the whole personality of the individual are critical of the use of tests and cumulative records because they overlook this fundamental point.

2. *The most important purpose of personnel records is to improve the instruction and guidance of each individual pupil.* Personnel records serve various purposes: they contribute to the administration of the school, they form a basis for reports to higher institutions, and they provide data for research. But in setting up a system of personnel records, these purposes are secondary. Each item should be evaluated in the light of its contribution to pupil adjustment and development, and a decision concerning whether or not to include the item in the record should be based first of all on its value to the individual pupil. The items not related to this central purpose that are necessarily added to the personnel-record system should be clearly differentiated from those of major importance, so that they will not be allowed to consume the time and confuse the thinking of persons who are studying the records for the sole purpose of helping the pupil develop normally.

3. *Records are needed that will be continuous over the whole school history from the kindergarten to the*

*junior college, and that will follow the child from school to school.* The bringing together of all available important information about a pupil at any given time and the recording of the facts in one place so that they may be studied is a great help in understanding the child, but the value of the record is increased manyfold if it is cumulative from year to year. It is self-evident that teachers in a higher grade need the benefit of the experience of teachers who have had the pupil in a lower grade. If a complete record of the child's history in a lower school can accompany him when he advances to a higher level, his new school can place him and deal with him to far greater advantage. Status at any given time is important, but for purposes of guiding a pupil, a knowledge of the amount of growth is even more important.

4. *The personnel records for all pupils should be readily accessible to the entire faculty of the school.* The value of personnel records is almost directly proportional to their use by the classroom teacher. They should be open to inspection by the teachers at all times; in fact, if possible, the teachers should be free to go directly to the records without having to utilize the services of a clerk to obtain access to the material. If there are matters of record about certain pupils that are too confidential to be read by everyone, they should be filed in a separate place. *The freedom of use of the main records should not be impaired by the need for recording occasional confidential bits of information.* Needless to say, the pupils themselves should not have access to each other's record cards but each pupil should have an opportunity to study his own cumulative record in consultation with his faculty adviser.

5. *The records system should be simple enough and well enough organized so that the essential facts about any given pupil will be brought together on one central record card or set of cards in such a way that they may be grasped through a few moments of study by busy teachers and counselors who are not highly trained in interpreting records.* Regardless of the extent and complexity of the procedures used in collecting the original data about each pupil, a plan should be evolved for "boiling down" the essential data and recording it in simple, concise, readable form. The record which the teacher or the counselor uses should be so greatly simplified that the high spots in the whole life of the child can be taken in almost at a glance. Naturally, more extensive and detailed information back of the entries on the cumulative record should be available, but either it should be filed in a different place or it should be arranged in such a manner that it does not interfere with the reading of the main record.

6. *An attempt should be made to keep the records high in reliability and comparability by basing them as far as possible on objective data.* Opinions about pupils are notoriously unreliable and they should have a minor place in the records. Main dependence should be placed on behavior descriptions, physical and mental measurements, and achievement test scores. School marks are useful if their meaning is carefully defined and if the marks are supplemented and interpreted by written comments. Probably the most important single type of data is scores obtained annually or semiannually on a series of comparable tests.

7. *The records should be uniform in type throughout all the schools of the local system.* Complete uniformity in personnel records may not be either possible or desirable for different schools because of differences in objectives, but the permanent records that are kept in the various schools of one city system should certainly be coördinated. This is particularly important if the elementary school cumulative record goes with the pupil to the junior high school, and the records for both elementary school and junior high school go along with the pupil to the senior high school.

The need for uniformity pertains, of course, to the permanent cumulative record and not necessarily to the "feeders" for the cumulative record, which may conceivably differ from school to school.

8. *The records system should provide for a minimum of repetition of items.* One of the most important reasons why schools hesitate to adopt a really comprehensive and significant system of cumulative records is the amount of clerical work involved in their upkeep. The clerical work can be minimized by planning the system so that needless duplication of items is avoided. A certain amount of duplication is of course inevitable in large schools, since it is not possible to have a single set of cumulative records placed where they are easily accessible to everyone. Where repetition is necessary, use should be made, wherever possible, of mechanical duplicating devices.

9. *The building of a personnel records system for a given school does not begin with a consideration of the records themselves; it begins with a study of the nature and purposes of the school and of the pupil.* The whole program of the school impinges upon the record system. A good system of records reflects the purposes of the school and what the school is doing. A new record system may perhaps go beyond the immediate program of the school and make provision for the recording of types of information that the school is not at the moment ready to provide, but it should by all means be consistent with the purposes of the school. Therefore, the first step in the revision of personnel records is to obtain a statement of the school's objectives. These objectives

should not be vague and ethereal, but should be stated in terms of pupil behavior. They should be stated by each department in the school and they should be specific and detailed rather than general. Once the school has agreed on what it is trying to do, it can proceed to build or to adopt a system of personnel records that will provide for the recording of information about the growth of pupils toward the goals it has set up.

10. *If a school adopts one comprehensive cumulative form as its basic personnel record, it should not only plan this form with meticulous attention to detail, but it should also carefully plan the forms which are to be used in collecting data which will contribute to the main record.* A cumulative record form cannot be regarded as a card for original entry. Obviously, it will seldom, if ever, circulate throughout the faculty so that the various members of the staff may make entries on it. The teachers, counselors, and others will record the information on transient forms of various sorts and they will record it, as a rule, in more detail than it appears on the cumulative record. It is the job of a specially trained staff member to select and summarize the original data and enter it on the permanent card. Obviously, the final entries cannot be more valid, reliable, and meaningful than the original ones. Therefore, the forms for original entry and the directions for filling them out should be set up very carefully.

11. *A detailed manual of directions should accompany the personnel records for the guidance of persons filling out or using the forms.* Some items on the record form, such as the name and address of the pupil, are of course self-explanatory, but others, for example, the personality trait record or the marking system used in the school, require explanation. It is, therefore, desirable to prepare a manual in which the various items will be taken up in order, and directions for recording given and interpretation of the entries explained. An explanation is particularly important if a graphical record of test results is maintained, for the meaning of a graph may not be easily apparent to everyone.

12. *There is a natural and logical relationship between the information on reports made to the parents and the information recorded for purposes of permanent record; this relationship should be taken into account in planning both types of forms.* The reports to the parents are less extensive and usually less detailed than the personnel records maintained by the school, and there are, of course, certain kinds of information that the school may not wish to give to the parents. For example, because of the danger of misinterpretation, it is seldom advisable to report IQs on mental tests to parents. Nevertheless, the reports to the parents and the cumulative records may well have many items in common, and efficiency will be promoted if they are planned in relation to one another.

13. *There is also a natural and close relationship between cumulative records and transcripts of school records which are sent to colleges.* For entrance to some colleges, copies of cumulative records made by the photostatic or other duplicating process may serve in lieu of college transcripts. In 1950, more than half of 1351 secondary schools that replied to a questionnaire on college admission practices indicated that requests from colleges for secondary school cumulative record cards were increasing. For reports to colleges that continue to insist upon the use of their own transcript form, the data on the pupil's cumulative record card may serve as the main basis of the filling out of the transcript. A compilation of college admission forms and letters has been prepared by the College Entrance Examination Board.[2]

14. *A system of personnel records must not be static; it must be revised frequently, as a school's theory of education changes.* The reasons why so many schools are now dissatisfied with their records and are trying to do something about them are that during the last few years we have been going through a period of rapid change in educational philosophy and practice and that records systems have been allowed to lag behind other developments. Many schools have, for example, begun to make extensive use of annual programs of comparable tests, but in many cases the cumulative records of the school do not provide adequately for the recording of the test results because they were developed in a period when tests were of minor importance to the school. Similarly, a large number of schools are giving more and more attention to the integration of personality and to social adjustment, but few permanent record systems make extensive provision for records concerning the development of pupils in these respects. A school should reëvaluate its personnel records at frequent intervals, discarding those items which are no longer used and adding others which are needed.

15. *It is imperative that a system of personnel records be associated with a program of teacher education in the use of these records.* The education of the teachers begins with the planning of the records. The building of a new system of personnel records should be an all-faculty job, not alone because of the educational value of the work, but also because no innovations in personnel records can be really successful without the full sympathy and participation of the teachers. Naturally the details of actually drawing up new records will be the work of a selected committee, but the whole faculty

[2] *Freshman Admissions Forms and Letters: A Collection of Specimens from Twelve Colleges.* New York: College Entrance Examination Board, 1954.

should contribute ideas and should help evaluate and revise the new forms before they are put into operation.[3] After the records system is set up, the teachers must be stimulated and encouraged to use the records in connection with their work with their pupils. One excellent means of promoting the use of records is a series of case studies carried on by the teachers themselves and discussed in a series of carefully planned staff meetings. The nature of a program of this kind will be discussed in some detail in Chapter XV.

## MAIN TYPES OF PERSONNEL RECORD SYSTEMS

The number of different personnel record forms in use in the schools of this country is unknown, but it is unquestionably very large. Surveys of a limited number of schools have identified hundreds of such forms. For example, some 30 years ago in a study of the office practices of only 15 secondary schools, Gray[4] discovered 688 different forms which were classified under 177 descriptive titles, only 12 of which were common to all 15 schools. In another early study, Heck[5] found 1515 different items in a study of the record forms of 131 cities in the United States. Only 11.3 percent of the 1515 items occurred on more than 10 forms, and 50.2 percent of the items occurred only once.

More recently, Ayer[6] analyzed the cumulative records used in 200 elementary schools in the state of Texas and found some 300 different items on this type of personnel record. Only 19 items, however, were common to a majority of the cumulative records, and there were 54 items, each of which occurred on only one of the 200 different forms.

A surprisingly large number of forms is required for the administration of the guidance department of any large city school. Becker,[7] for example, listed 31 forms employed in the guidance department of the Samuel Tilden High School, Brooklyn, New York. Similarly, Clark[8] listed 42 guidance forms utilized in the Roosevelt High School, Seattle, Washington, although some of the forms had broader use than for guidance alone. At the college level, the record system may be especially complex, as is brought out by Fulton's analysis of the extensive personnel record system of Syracuse University.[9]

Nearly all the personnel records used by schools, however, can be classified into a relatively small number of types. We may classify record forms in four different ways —first, according to function; second, according to filing arrangement; third, according to the nature of the centralizing unit; and fourth, according to permanency.

### RECORDS CLASSIFIED ACCORDING TO FUNCTION

The grouping of records according to the function they perform is the most familiar way of classifying them. This type of classification for senior high school records was made effectively by Bristow and Proctor.[10] The groups are as follows: (1) forms dealing with registration and classification of students; (2) attendance records; (3) routine permits and passes; (4) reports to parents; (5) health and physical training records; (6) special and cumulative record cards; and (7) reports to colleges and standardizing agencies. Among the forms included in the first group are registration cards, pupils' program cards, course-of-study cards, class lists, forms showing distribution of marks, forms for application for change of course, and forms used in granting permit to change course.

In the second group, attendance records, are included the teacher's daily attendance report, the high school admission card, and the attendance investigation card. The third group covers various brief forms for routine passes and permits, such as permit to go to the library, permit to make up lessons missed on account of absence, and card giving permission for early dismissal. The fourth group, reports to parents, includes not only the regular periodic report on work covered, accomplishment, and growth, but also various special reports among which are report regarding absence and tardiness, report regarding deficiency in scholarship, report regarding conduct, and report of suspension.

Health and physical training records, which make up the fifth group, include form for reporting pupils to school physician, form for school nurse to use in reporting health inspection, certificate of disability, record of

[3] For a discussion of procedures followed in one secondary school, see Lester W. Nelson, "Developing a Cumulative Record Card for Local Use," *Guidance in Public Secondary Schools,* pp. 73–78. Educational Records Bulletin No. 28. New York: Educational Records Bureau, October 1939.

[4] M. R. Gray. "The Office Practices of High-School Principals." Unpublished Master's Thesis, Department of Education, University of Chicago, 1927, pp. 54–55.

[5] Arch O. Heck. *Administration of Pupil Personnel,* p. 190. New York: Ginn and Company, 1929.

[6] Fred C. Ayer. *Practical Child Accounting,* pp. 11–12. Austin, Texas: The Steck Company, 1949. Pp. viii + 238.

[7] Elsa Becker. *Guidance at Work in a Large City High School.* New York: New York City Board of Education, 1935. Pp. xii + 125.

[8] Frank Jones Clark. *Guidance Working Materials for Junior and Senior High Schools.* Seattle: The Author, Roosevelt High School, 1936.

[9] Margaret J. Fulton. "Analysis of a Personnel Record System," *Journal of Higher Education,* XXII (April 1951), 209–211.

[10] A. B. Bristow and William M. Proctor. "Senior High School Records and Reports," *Junior-Senior High School Clearing House,* IV (March 1930), pp. 410–432.

routine medical examination, and, most important of all, the pupil's permanent health record card.

In the sixth class we have what is, without doubt, the most valuable of all the many personnel records that may be maintained by the school, namely, the cumulative record card. This form will be discussed at length and illustrated in the next chapter.

The seventh and last group includes transcript of credits, certificate of recommendation to college, personnel rating blanks, and other forms for reporting to colleges and standardizing agencies. To an increasing degree, cumulative record cards are being used to supplement the usual type of report to colleges. As we will see later, at the present time many influences are working toward a radically different type of report to colleges than has been used in the past.

Personnel records for the elementary school and the junior high school may be classified into the same general categories, with the exception of the final group, but fewer records are ordinarily needed at the elementary school level than at the high school level.

## RECORDS CLASSIFIED ACCORDING TO FILING ARRANGEMENT

Another way of looking at records systems is to consider the degree to which they are centralized. At one extreme we may postulate a records system which is completely decentralized—that is, one in which each member of the school staff would keep the records which pertained to his own work and in which no attempt would be made to centralize the information about each child. Obviously, a recording plan of this kind is purely hypothetical, for no present day school could be administered on such a basis. There is a minimum of information about the character of a pupil's work in school which must inevitably be made available in the principal's and the counselor's offices, even though it may in some cases be nothing more than a record of attendance and of marks assigned to the pupils at stated intervals.

The opposite extreme to the recording plan just mentioned would be one in which the teachers and counselors would keep no records at all but would forward all data to the central office to be filed or entered on cumulative records. No school would attempt to apply such a plan, for in practice it would be almost as faulty as a completely decentralized plan.

There is at present a commendable tendency toward greater centralization of personnel records, and many schools have carried this tendency to the point where they attempt to bring together all important information about each pupil on a single cumulative record. It should be clearly understood, however, that back of any really meaningful cumulative record system there is much detailed and noncentralized information in the records of the various individual teachers. It is the possession of these detailed and decentralized records that enables the teachers to prepare valid summary reports for the cumulative records.

Some schools that are convinced of the wisdom of centralized cumulative records do not find it practicable to centralize their records to such a degree that they have only one single cumulative record form. In very large schools, the mere consideration of distance from one part of the plant to the other may make it preferable for certain departments to have their own cumulative records and to report only a very abbreviated summary of their own record to be entered on the cumulative record form in the central office. This is true particularly of health and physical education departments. Consequently, cumulative health records have been developed in a good many schools on a parallel to the more comprehensive cumulative records to be found in the principal's office.

## RECORDS CLASSIFIED ACCORDING TO THE NATURE OF THE CENTRALIZING UNIT

In general, any one of three plans may be used to bring together and to organize in a central filing system the data about individual pupils. A school may follow the practice of filing loose sheets in cumulative folders, or it may transfer the data annually to a cumulative card or folder, or it may use a combination of the two. Let us see how each one works and consider its advantages and disadvantages.

The cumulative folder should be of the expanding type, sufficiently large to hold an accumulation of several years' data for a given pupil. It may be used for filing teachers' reports about the pupil, a sample of his work, his test papers, anecdotal records, and any other information that will help to give a comprehensive picture of the pupil as a growing individual.

One difficulty in the use of the cumulative folder is that the accumulation of information will probably after a time become unwieldy, so that the very volume of the data, together with the fact that the information is on loose sheets, makes organization difficult. This difficulty may be met to some extent by utilizing a folder that has separate compartments for different kinds of data. Flory and Webb[11] have suggested the use of a cumulative folder with six subdivisions, as follows: correspondence and reports of conferences, health reports, admission and entrance data, mental records, personality records, and

[11] Charles D. Flory and James F. Webb. "Cumulative Records for Elementary Schools," *Elementary School Journal*, XXXVIII (December 1937), 278–290.

scholastic records. In their article there was no mention of any school system in which a folder of this kind has actually been installed, but the advantages of this type of organization of the data for each individual as contrasted to one large folder in which all the papers for a pupil are filed indiscriminately are obvious.

While a carefully organized folder is no doubt very helpful for a counselor or for anyone who can spend considerable time studying one individual, it is almost impossible for a principal, classroom teacher, or counselor to make a quick appraisal of a pupil through the use of a folder containing many loose papers. It seems desirable, therefore, to have the most significant information recorded on a cumulative record card that can be handled easily and read quickly. Some schools prefer to depend entirely on the cumulative card or set of cards and so do not maintain any cumulative folders at all. This may be a workable plan if the cumulative record card is large and if it is filled out in full, but as Flory and Webb[12] pointed out, many of the "shorthand" notations on the cumulative record tend to lose much of their meaning for subsequent users of the card when they are completely divorced from the original data from which they were abstracted.

A plan that involves the maintaining of both a system of cumulative record cards and a set of cumulative folders seems to be the ideal arrangement if a school has a sufficient office staff for the handling of such a system. A plan of this kind has three possible variants, which are as follows: (1) the use of the cumulative record as the folder in which the papers containing more detailed information about the pupil are filed; (2) the filing of the cumulative record cards and other information in the same folder; and (3) the maintenance of separate files of folders and record cards. A number of the well-known cumulative record forms can be used in the manner first described, if the school wishes to employ them as file folders as well as record folders. Among these are the cumulative record folders of the American Council on Education, the National Association of Secondary School Principals, and the Los Angeles City Schools. The main difficulty in the use of the cumulative card as an individual file folder is that it is not large nor durable enough to hold all the papers, if a serious attempt is made to assemble and retain all the significant information about each pupil. Moreover, the utility of a record card which serves as a file folder will be reduced because the card will tend to become soiled and difficult to read, and if filled with papers, cannot be handled quickly and efficiently, either in entering data or in reading the entries that have already been made.

The idea of providing individual folders for filing cumulative record cards along with other papers seems not to have found its way into practice in many schools, but there is one good illustration of such a plan among the record forms that have been devised in recent years. The Riverside, California, schools have provided for the filing of an educational record, a social and personal record, and a health record along with special data in an 8½- by 11-inch folder.

There is a mechanical difficulty in filing cumulative record cards and other papers in the same folder. After a pupil has been in school for several years, his folder will probably become well filled and rather unwieldy. His cumulative cards cannot easily be consulted without removing the whole folder from the file; yet to take the whole folder out of the file to get one or two items of information about a pupil is time-consuming. Such a plan runs the hazard of discouraging teachers from going to the cumulative records frequently.

Separate files of cumulative record forms and individual folders placed in the same office seem to be the best arrangement. This plan is illustrated by the files of the records office of the University of Chicago Laboratory Schools. Each pupil's cumulative record from the kindergarten through high school is kept on four "master" cards and this cumulative record is paralleled by a large cumulative file folder in which samples of the pupil's work, teachers' reports, correspondence between the school and the parents, and other significant data are filed. A plan of this kind efficiently serves the needs of both the teacher who wishes to obtain a quick general picture of the pupil's work, or to secure without loss of time certain specific items from the cumulative record, and the case worker or counselor who is making a detailed study of the pupil.

#### RECORDS CLASSIFIED ACCORDING TO PERMANENCY

Some forms used in guidance departments are designed merely to serve an immediate purpose, such as the summoning of pupils to appear at the counselor's office at a certain time, or interoffice communication about pupils. Although it is true that if these slips are later filed in the counselor's office they will help to round out the picture concerning the pupil, they are less significant and can be eliminated more readily from consideration than certain other forms.

A second, and much more important, class of guidance records includes a variety of forms that are intended to be more or less permanent. Under a system in which a record *folder* is the main vehicle for organizing and preserving in a relatively permanent form the counselor's records about individual pupils, these records will be carefully filed in the folder, will be preserved at least

[12] *Ibid.*

until the pupil is graduated, and will serve as the counselor's principal source of cumulative information about each pupil. If there is a comprehensive system of cumulative record *cards,* on the other hand, many of the data will be transferred to the cumulative cards and the forms for original entry will be much less important as permanent sources of information, although they may well be preserved to supplement the cumulative record cards. Illustrations of the semipermanent record forms falling into this category are blanks for securing information about students, reports from schools previously attended by the pupil, forms for teacher estimates concerning pupils, forms for pupils' self-estimates, reports on causes of failure, records of interviews, forms for summarizing the results of one testing program, and forms which pupils may use in giving statements of their vocational interests.

A third, and still more important, class of counselor's records consists of forms that are designed to provide a permanent and cumulative picture of pupil development. These cumulative records have so close a relationship to the efficiency of the guidance program that a separate chapter may profitably be devoted to a discussion of them.

CHAPTER XIII

# *Cumulative Records in a Guidance Program*

## WHAT THE CUMULATIVE RECORD IS

In contrast to some of the terms used to characterize pupil personnel records, such as school register, report card, transcript of credits, and permanent record card, the term *cumulative record* is a comparatively recent addition to educational terminology. Cumulative records are rarely mentioned in the literature prior to 1925, and the term did not come into common usage until after 1930. Even today, the term is not yet well standardized. From a nontechnical standpoint, the words *cumulative record* are properly applied to any record that is formed or becomes larger by successive additions. Thus all permanent record forms that are designed to cover a period of years, even though they are very sketchy, may be called cumulative records. The term is also used in a restricted sense to designate the newer type of record forms in which emphasis is placed on objective measurements and personality data as contrasted with the older type of permanent record that was confined largely to attendance, school marks, and credits. It is sometimes used in a still more restricted sense to apply to the cumulative record forms of the American Council on Education and to adaptations thereof. In the present discussion, the concept *cumulative record* will be used in a rather broad sense and will apply to all records that make provision for the accumulation of significant and comprehensive information about an individual pupil over a period of years, although the illustrations will be drawn mainly from the American Council forms and their adaptations.

## VARIATIONS IN RECORD FORMS

Surveys of cumulative record forms, such as those by Heck (19), Troxel and Koos (46), and Segel (38) show great variations among schools in number and kinds of items included. Differences in local conditions, of course, make a certain amount of diversity in record forms inevitable, but an extremely wide variability in the records of different schools unquestionably creates difficult problems in the exchange of records and in their efficient use by school officers.

Segel (38) classified the items found on the records of 177 school systems into 17 categories and tabulated the frequency of occurrence of each type of item. The types of items found most frequently were scholarship (marks), school progress, attendance, entrance and withdrawal, home conditions and family history, intelligence test results, social and character ratings, and health. Regardless of the variability in details, it is generally agreed that a good cumulative record should be based as largely as possible on objective data, should be organized into annual divisions, and should present an all-round picture of individual development rather than one narrowly confined to academic achievement.

## THE CORE OF THE GUIDANCE PROGRAM

Objective data about individuals are essential to effective guidance, but there is a danger that a program in which such data have a leading place will become confused and obscured by a multitude of unrelated trivia. A single datum, no matter how objective and valid, is of little value; it is only when data are brought together and related, both laterally and chronologically, that they become meaningful. The device by means of which different kinds of information are brought together and organized is a comprehensive individual *cumulative record.*

This record is the important feature of every guidance program that takes its origin from an objective study of the individual. This record ties the loose ends together.

Although the best possible cumulative record cannot in itself insure successful guidance in a school, no plan of advising and counseling students can rise to the level of a thorough guidance program unless it includes a cumulative record *which is understood and used by counselors and teachers alike.* The cumulative record is at once the main technique for the education of the faculty and the strategic organizational device in the whole guidance program.

## AMERICAN COUNCIL CUMULATIVE RECORD FORMS

Much of the present interest in the newer and more comprehensive type of cumulative record can be traced to the pioneer work that was done in 1928 by the Committee on Personnel Methods of the American Council on Education, and in particular to the work of Professors Ben D. Wood, of Columbia University, and E. L. Clark, of Northwestern University, in devising the original American Council cumulative record folder. Following the work of that committee, the American Council on Education published four cumulative record forms, including a folder for college students, a folder for secondary school pupils, a card for elementary school pupils, and a card that could be used in either the elementary or the secondary school. Approximately half a million of these record forms were distributed and, in addition, the forms influenced the records of many other organizations and countless local school systems.

In 1940, the Council appointed a committee, with Eugene Randolph Smith as chairman, for the purpose of revising the cumulative record forms to take into account the new trends and progress that had been made in the recording of personnel data by certain other organizations, such as the Progressive Education Association. The Smith committee prepared revisions which included cumulative record folders for junior and senior high schools, for colleges, for Grades 4, 5, and 6, and for the primary grades. Since these are still the most extensive and comprehensive set of cumulative record forms available anywhere, a more detailed explanation of the nature of these forms will be made later in this chapter.

## THE EDUCATIONAL RECORDS BUREAU ADAPTATION OF THE AMERICAN COUNCIL CUMULATIVE RECORD FORM

One of the best-known adaptations of the original American Council form is the Educational Records Bureau Cumulative Record Card for Independent Schools which was devised by Eleanor Perry Wood and Winston B. Stevens. This type of form is illustrated by the records of three pupils in Form 10A, B, and C.[1]

The front of the card, which is made to fit the ordinary letter-size file, is devoted almost entirely to a record of subjects, marks, and credits, and to an extensive test record. The test results are reported in both tabular and graphic form; in fact, one of the distinguishing features of the original American Council form and its adaptations is the gridiron graph in which the results are shown in terms of percentile ratings arranged according to the sigma scale. The back of the card has space for the recording of a variety of less objective data, including information on discipline, home influences and cooperation, mental and emotional factors, physical and athletic development, extracurriculum activities and interests, notable accomplishments and experiences, educational plans, and personality. The whole card is planned for a six-year record, and all the data for any given year are confined to a single column so that the cumulative effect is immediately apparent.

This type of record form is easy to understand and use, except for the fact that the graph of test scores, although the clearest phase of the record to one familiar with graphs of this kind, may seem somewhat puzzling to persons who have had no experience with it. As already indicated, the percentile scale at the left is based on the sigma scale and the distance between successive percentiles is much smaller near the median than at the extremes. The median, or 50th percentile, is marked by the heavy line going horizontally across the graph. The symbols at the top—Jy, Au, S, O, and so forth—stand for the months of the year. As a convenience, the months are grouped according to school years rather than calendar years.

The percentile data that are shown in the table of scores are also entered in the graph. The small dots on the graph show the placement of the various percentiles, the dots being identified by the abbreviated names of the tests printed near them. For example, when the first pupil, Paul R. Lewis (Form 10A), was in the sixth grade, his Kuhlmann-Anderson mental age, 15–0, corresponded to an independent school percentile rating of 86 on a test taken in October 1949. The dot has been placed under "O" and opposite the level of 86 in the percentile scale, and has been labeled "M.A." to indicate that it stands for the percentile rating on mental age. The percentile shows that the pupil's mental age was up to or above those of 86 percent of the independent school sixth-grade pupils whose results were used in the norms for the Kuhlmann-Anderson test.

The percentile points for tests that are in the same

[1] All names in illustrative forms are fictitious.

NAME Lewis, Paul R. BIRTHDATE 12-29-38

**YEAR 1949-50** — SCHOOL Hawthorne — GRADE 6, 6 — MENTAL AGE 15-0 — CHRON AGE 11

| SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|
| Eng. | A | A |
| Arith. | B | A |
| Sci. | A | A |
| Soc. Stud. | A | A |
| Art | S | S |

| TEST (Academic Aptitude and Reading) | Score M.A. | I.Q. | %ile |
|---|---|---|---|
| Kuhlmann-Anderson | 15-0 | 138 | 86 90 |

| TEST (Achievement) | Score E.A. | %ile |
|---|---|---|
| Stan. Ach.-Adv. D-Tot. Av. | Gr. Pl. 11.0 | 95 |
| Av. Read. | 12.0 | 94 |
| Lang. Us. | 12.3 | 94 |
| Av. Arith. | 9.9 | 91 |
| Lit. | 13.5 | 95 |
| Av. Soc. St. | 12.2 | 96 |
| Elem. Sci. | 13.5 | 97 |
| Spell. | 11.0 | 95 |

**YEAR 1950-1951** — GRADE 7, 7 — MENTAL AGE 16-6 — CHRON AGE 12

| SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|
| Eng. | A | A |
| Arith. | A | A |
| Sci. | A | B |
| Soc. Stud. | A | A |
| Music | S | S |

| TEST (Academic Aptitude and Reading) | Score M.A. | I.Q. | %ile |
|---|---|---|---|
| Calif. Ment. Mat. Adv.-Tot. Ment. Fact. | 16-6 | 140 | 87 92 |
| Traxler Sil. Read. - 4 | 139 | | 97 |

| TEST (Achievement) | Score E.A. | %ile |
|---|---|---|
| Stan. Ach.-Adv. F-Tot. Av. | Gr. Pl. 12.5 | 96 |
| Av. Read. | 13.3 | 95 |
| Lang. Us. | 14.4 | 93 |
| Av. Arith. | 13.0 | 93 |
| Lit. | 13.8 | 87 |
| Av. Soc. St. | 13.6 | 98 |
| Elem. Sci. | 13.8 | 99 |
| Spell. | 13.5 | 97 |
| Math. 7,8,9-Coop RO | 66 | 94 |

**YEAR 1951-1952** — GRADE 8, 8 — CHRON AGE 13

| SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|
| Eng. | A | A |
| Lit. | B | A |
| Lat. | B | B |
| Arith. | A | A |
| Sci. | A | A |
| Soc. Stud. | A | B |

| TEST (Academic Aptitude and Reading) | Score M.A. | I.Q. | %ile |
|---|---|---|---|
| S.E.B. Jr. Sch. Apt.-DR Verb. | 64.7 | | 96 |
| Num. | 63.9 | | 91 |
| Traxler Sil. Read.-1 | 147 | | 95 |

| TEST (Achievement) | Score E.A. | %ile |
|---|---|---|
| Stan. Ach.-Adv. H-Tot. Av. | Gr. Pl. 14.1 | 98 |
| Av. Read. | 13.7 | 96 |
| Lang. Us. | 14.4+ | 96 |
| Av. Arith. | 14.2 | 94 |
| Lit. | 14.4+ | 98 |
| Av. Soc. St. | 14.4 | 99 |
| Elem. Sci. | 14.1 | 98 |
| Spell. | 14.4+ | 99 |
| Lat. Coop. Q-Gr. 8-1 yr. Elem. Tot. | 54 | 86 |
| Read. | 53 | 78 |
| Vocab. | 50 | 88 |
| Gram. | 57 | 84 |

**YEAR 1952-1953** — GRADE 9, 9 — CHRON AGE 14

| SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|
| Eng. I | A | A |
| Fr. I | A | A |
| Alg. I | B | A |
| Anc. Hist. | A | A |

| TEST (Academic Aptitude and Reading) | Score M.A. | I.Q. | %ile |
|---|---|---|---|
| Amer. Council Psych.-1952 | 126 | | 96 |

| TEST (Achievement) | Score E.A. | %ile |
|---|---|---|
| Eng.-Coop Z | | |
| A-Mech. of Exp. | 52 | 63 |
| C1-Read. Comp. | 76 | 93 |
| Vocab. | 63 | 88 |
| Speed | 69 | 84 |
| Level | 86 | 99 |
| Fr. Coop. P-Gr. 9-1 yr. Elem. Tot. | 64 | 96 |
| Read. | 62 | 97 |
| Vocab. | 66 | 94 |
| Gram. | 60 | 90 |
| Elem. Alg.-Coop. Y | 64 | 70 |
| Anc. Hist.-Coop P | 73 | 92 |

**YEAR 1953-1954** — GRADE 10, 10 — CHRON AGE 15

| SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|
| Eng. II | A | B |
| Fr. II | A | A |
| Pl. Geom. | A | A |
| Wld. Hist. | A | A |

| TEST (Academic Aptitude and Reading) | Score M.A. | I.Q. | %ile |
|---|---|---|---|
| Amer. Council Psych.-1949 | 147 | | 98 |

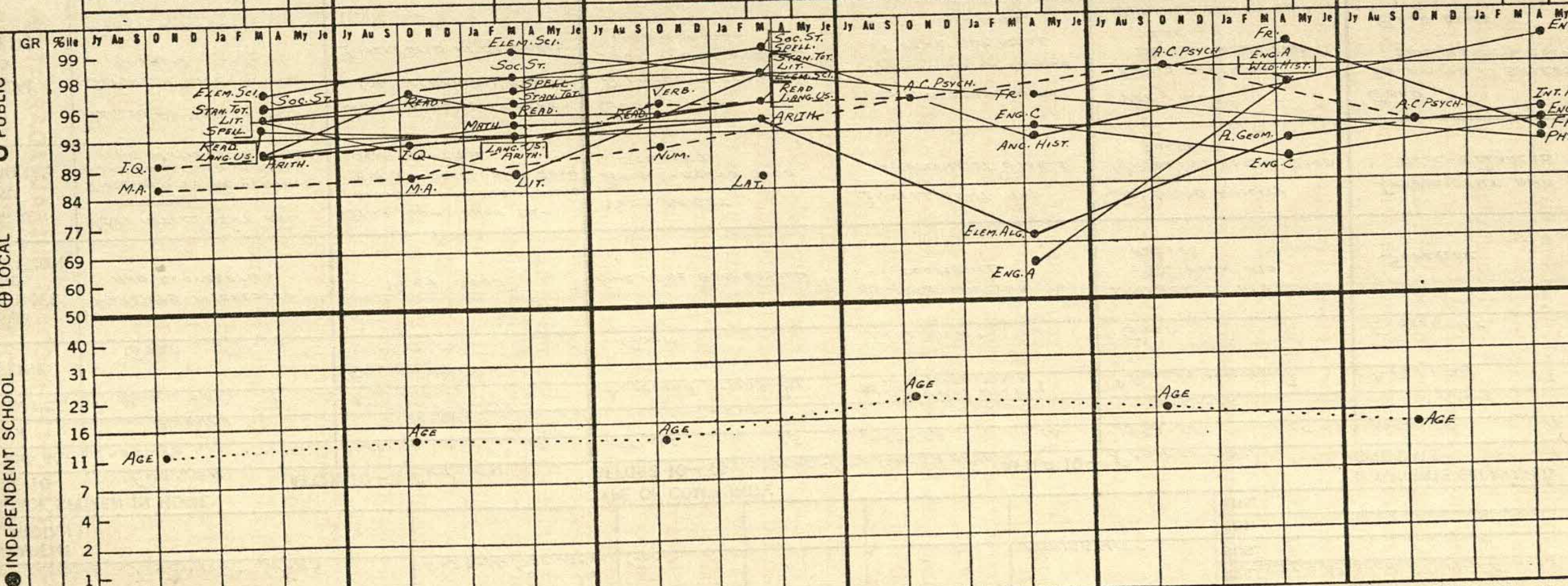
| TEST (Achievement) | Score E.A. | %ile |
|---|---|---|
| Eng.-Coop. Y | | |
| A-Mech. of Exp. | 68 | 97 |
| C2-Read. Comp. | 66 | 88 |
| Vocab. | 69 | 95 |
| Speed | 66 | 83 |
| Level | 60 | 71 |
| Fr. Coop R-Gr. 10-2 yrs. Adv. Tot. | 87 | 99 |
| Read. | 83 | 97 |
| Vocab. | 89 | 100 |
| Gram. | 79 | 99 |
| Pl. Geom.-Coop. Z | 70 | 91 |
| Cum. Wld. Hist.-AM | 133 | 97 |

**YEAR 1954-1955** — GRADE 11, 11 — CHRON AGE 16

| SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|
| Eng. III | B | A |
| Fr. III | A | B |
| Alg. II | B | A |
| Phys. | A | A |

| TEST (Academic Aptitude and Reading) | Score M.A. | I.Q. | %ile |
|---|---|---|---|
| Amer. Council Psych.-1954 | 133 | | 93 |

| TEST (Achievement) | Score E.A. | %ile |
|---|---|---|
| Eng.-Coop. RX | | |
| A-Mech. of Exp. | 78 | 99 |
| C2-Read. Comp. | 75 | 93 |
| Vocab. | 73 | 95 |
| Speed | 72 | 87 |
| Level | 77 | 94 |
| Fr. Coop Q-Gr. 11-3 yrs. Adv. Tot. | 88 | 92 |
| Read. | 90 | 90 |
| Vocab. | 83 | 88 |
| Gram. | 79 | 91 |
| Int. Alg.-Coop. T | 70 | 94 |
| Phys. Coop. ERB-SX | 58 | 91 |




CUMULATIVE RECORD FOR INDEPENDENT SCHOOLS — EDUCATIONAL RECORDS BUREAU — 21 AUDUBON AVENUE, NEW YORK 32, N. Y.

**FORM 10A (Front).**

| | M. F. | BIRTHDATE—PLACE | GEN'L HEALTH | RELIGION | RACE OR NAT'L'TY | OCCUPATION | ADDRESS |
|---|---|---|---|---|---|---|---|
| NAME: Lewis, Paul R. | | 12-20-38 Chicago Ill. | Good | Episc. | American | Student | 5925 Maryland Avenue, Chicago, Ill. |
| FATHER: Lewis, George D. | | 6-19-10 Buffalo N.Y. | Excellent | " | " | Public Accountant | RES. 5925 Maryland Avenue, Chicago, Ill.<br>BUS. 254 N. LaSalle Street, Chicago, Ill. |
| MOTHER: Lewis, Josephine Ward | | 8-23-14 Springfield Mo. | Good | " | " | Housewife | RES. 5925 Maryland Avenue, Chicago, Ill.<br>BUS. |
| STEP-PARENT OR GUARDIAN | | | | | | | RES.<br>BUS. |

| LANGUAGE SPOKEN IN HOME | TYPE OF COMMUNITY | IF PARENTS SEPARATED GIVE DATE |
|---|---|---|
| BEFORE 10— English; AFTER 10— English | BEFORE 10— Residential-City homes & apts. AFTER 10— Residential | |

| YEAR AND AGE | 1949-50 11 | 1950-51 12 | 1951-52 13 | 1952-53 14 | 1953-54 15 | 1954-55 16 |
|---|---|---|---|---|---|---|
| ADVISER | Dabney | Dabney | Winslow | Winslow | Goff | Goff |
| ATTENDANCE | A Regular T | A Absent 5 days with colds T | A Regular attendance T | A Out three weeks with pneumonia T | A Regular attendance T | A Regular T |
| DISCIPLINE | Good | Fair - Inclined to be noisy | Good | Excellent | Good | Excellent |
| HOME INFLUENCES AND COOPERATION | Parents interested and cooperative | Very good | Fine home background | Always willing to cooperate | Interested in helping Paul plan his future | Superior |
| MENTAL AND EMOTIONAL | Very intelligent and dependable. Inclined to be nervous. Gets so excited in class he stutters at times | Still somewhat excitable and high strung but is developing good self-control | Very bright. An all-round good student | Intelligent and emotionally stable | Splendid ability. Material for a good college | Intelligent and well-balanced |
| PHYSICAL AND ATHLETIC | Health generally good. Slightly over-active thyroid. Wears glasses | Good health except for occasional colds. Interested in baseball | Good. A little nearsighted but vision normal with glasses | Had a setback with pneumonia in middle of year but made quick recovery | Very good. Rapid physical development this year. Out for basketball and track team | Good. Is active in basketball, track & golf. Rifle club |
| EXTRA-CURRICULAR ACTIVITIES AND INTERESTS | Builds model ships. Collects stamps. Reads many books. Has ducks and rabbits for pets | Makes model ships and planes. Interested in military history and history of the airplane | Building models illustrating stages in development of airplane. Reading military and naval history | Model planes and ships. Extensive reading in history and science. Summer camp | Boat building. Overhauling and re-building automobile engine. Summer camp | Boat building. Sailing. Mountain climbing. Counselor in summer camp |
| NOTABLE ACCOMPLISHMENTS AND EXPERIENCES | One of the leaders in his class. Very popular | Leads the class in general ability. Took trip to Mexico City last summer | Winning personality makes him a leader. Organized club of boys interested in model ships & planes | Vice-president of his class | Class president. Elected to student council | Student council. Rifle clubteam |
| EDUCATIONAL PLANS | No definite plans | Plans to take college preparatory course | Interested in Naval Academy | Thinks he prefers small to medium sized college for men | Is considering Hamilton, Lehigh, Amherst and several other colleges | Will apply to Amherst College. Plans to major in social science |
| PERSONALITY RATINGS +2 | A boy of excellent promise | Popular & a natural leader | Ability to work, organize, cooperate, | Splendid personal qualities | Cooperation, leadership | Outstanding personality |
| +1 | | | | | | |
| 0 | | | | | | |
| −1 | | | | | | |
| −2 | | | | | | |

REMARKS: An outstanding boy in every way. Should be a real asset to his college. Vocational aim is not yet definite, but will decide during senior year of high school. Is thinking of graduate degree in political science and then some aspect of diplomatic service.

**FORM 10A (Back).**

NAME - Nichols, Frank C. BIRTHDATE 1-3-37

| | | | | | | |
|---|---|---|---|---|---|---|
| YEAR | 1949-1950 | 1950-1951 | 1951-1952 | 1952-1953 | 1953-1954 | 1954-1955 |
| SCHOOL | Spring Valley | | | | | |
| GRADE | 7 7 | 8 8 | 9 9 | 10 10 | 11 11 | 12 12 |
| MENTAL AGE | 14-2 | 15-0 | | | | |
| CHRON. AGE | 13 | 14 | 15 | 16 | 17 | 18 |

**SUBJECTS, GRADES AND CREDITS**

| SUBJECT | 1st Sem. | 2nd Sem. | SUBJECT | 1st Sem. | 2nd Sem. | SUBJECT | 1st Sem. | 2nd Sem. | SUBJECT | 1st Sem. | 2nd Sem. | SUBJECT | 1st Sem. | 2nd Sem. | SUBJECT | 1st Sem. | 2nd Sem. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eng. | C | C | Eng. | C | C | Eng. I | C | C | Eng. II | C | D | Eng. III | C | D | Eng. IV | C | C |
| Arith. | C | C | Lat. | F | – | Fr. I | D | D | Fr. II | D | D | Fusion Math. | D | D | Chem. | D | C |
| Sci. | C | D | Arith. | C | C | Alg. I | C | D | Geom. | C | B | Phys. | D | D | Amer. Hist. | C | D |
| Soc. Stud. | D | D | Sci. | C | D | Anc. Hist. | C | C | Biol. | C | C | Econ. | C | C | Prob. of Dem. | D | C |
| | | | Soc. Stud. | D | C | | | | | | | | | | | | |

**ACADEMIC APTITUDE AND READING**

| Year | TEST | SCORE M.A. | I.Q. | %ile |
|---|---|---|---|---|
| 1949-1950 | Kuhlmann-Anderson | 14-2 | 111 | 30 24 |
| 1949-1950 | Traxler Sil. Read.-3 | 90 | | 35 |
| 1950-1951 | Kuhlmann-Anderson | 15-0 | 108 | 30 22 |
| 1950-1951 | Diag. Read. Rate | 230 | | 30 |
| 1950-1951 | Survey-C Tot. Comp. | 44 | | 27 |
| 1951-1952 | Amer. Council Psych.-1947 | 81 | | 41 |
| 1951-1952 | Iowa Sil. Read Adv. DM-Md. Sc. | 156 | | 18 |
| 1952-1953 | Amer. Council Psych.-1952 | 87 | | 28 |
| 1953-1954 | Amer. Council Psych.-1949 | 111 | | 53 |
| 1954-1955 | Amer. Council Psych.-1954 | 101 | | 38 |

**ACHIEVEMENT TEST SCORES AND PERCENTILES**

1949-1950

| TEST | SCORE E.A. | %ile |
|---|---|---|
| Stan. Ach.-Adv. D-Tot. Av. | Gr. Pl. 9.0 | 37 |
| Av. Read. | 9.6 | 45 |
| Lang. Us. | 10.0 | 49 |
| Av. Arith. | 8.1 | 31 |
| Lit. | 10.3 | 50 |
| Av. Soc. St. | 7.4 | 18 |
| Elem. Sci. | 8.5 | 25 |
| Spell. | 5.9 | 10 |

1950-1951

| TEST | SCORE E.A. | %ile |
|---|---|---|
| Stan. Ach.-Adv. F-Tot. Av. | Gr. Pl. 9.8 | 34 |
| Av. Read. | 10.5 | 47 |
| Lang. Us. | 10.6 | 37 |
| Av. Arith. | 9.6 | 36 |
| Lit. | 11.3 | 51 |
| Av. Soc. St. | 8.8 | 26 |
| Elem. Sci. | 8.5 | 14 |
| Spell. | 7.2 | 20 |
| Lat.-Coop. R (Gr. 8-1 yr. Elem. Tot.) | 35 | 4 |
| Read. | 34 | 6 |
| Vocab. | 38 | 9 |
| Gram. | 41 | 7 |
| Math. 7,8,9 Coop. RO | 57 | 51 |

1951-1952

| TEST | SCORE E.A. | %ile |
|---|---|---|
| Eng.-Coop. S | | |
| A-Mech. of Exp. | 42 | 19 |
| C1-Read Comp. | 47 | 25 |
| Vocab | 48 | 35 |
| Speed | 49 | 29 |
| Level | 45 | 22 |
| Fr. Coop. Q (Gr. 9-1 yr. Elem. Tot.) | 32 | 14 |
| Read. | 30 | 24 |
| Vocab | 39 | 16 |
| Gram. | 36 | 10 |
| Elem. Alg.-Coop. S | 58 | 48 |
| Anc. Hist.-Coop. Q | 56 | 38 |

1952-1953

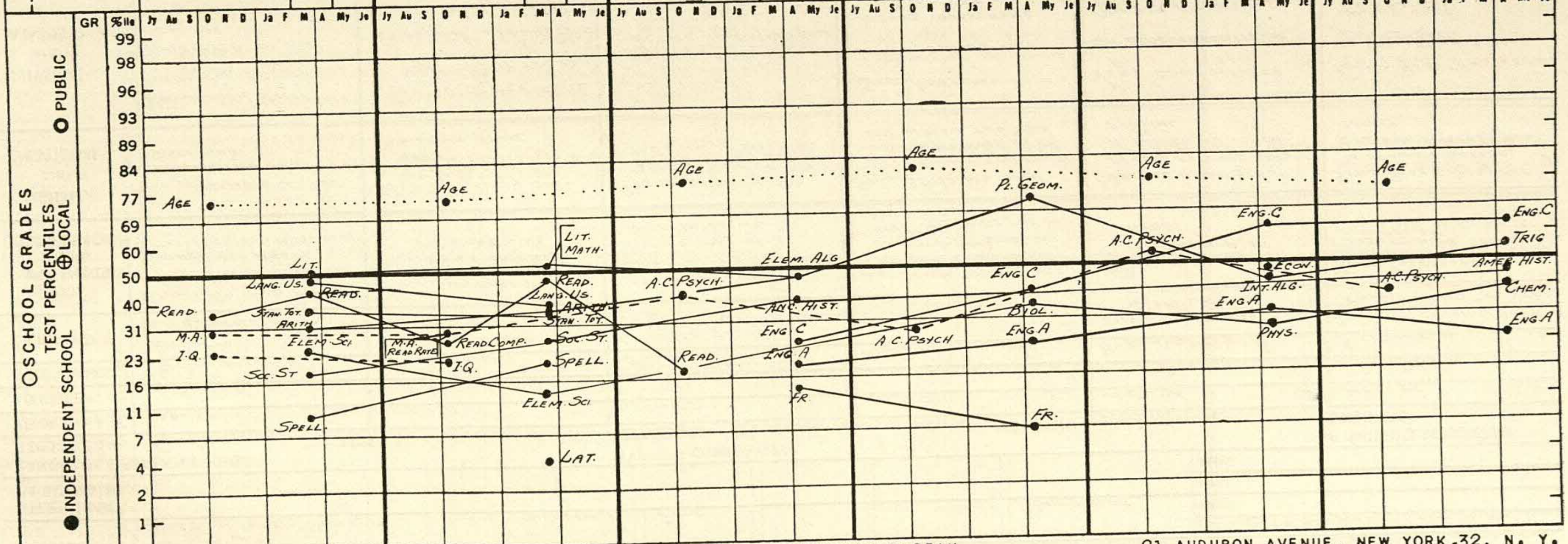
| TEST | SCORE E.A. | %ile |
|---|---|---|
| Eng.-Coop. Z | | |
| A-Mech. of Exp. | 45 | 24 |
| C2-Read Comp. | 54 | 44 |
| Vocab | 49 | 33 |
| Speed | 60 | 61 |
| Level | 53 | 30 |
| Fr. Coop. P (Gr. 10-2 yrs. Adv.-Tot.) | 48 | 7 |
| Read | 38 | 5 |
| Vocab | 53 | 12 |
| Gram. | 55 | 15 |
| Pl. Geom.-Coop. Y | 65 | 73 |
| Biol.-Coop. ERB-TX | 71 | 36 |

1953-1954

| TEST | SCORE E.A. | %ile |
|---|---|---|
| Eng.-Coop. Y | | |
| A-Mech. of Exp. | 53 | 32 |
| C2-Read Comp. | 61 | 62 |
| Vocab. | 56 | 47 |
| Speed | 62 | 61 |
| Level | 64 | 74 |
| Int. Alg.-Coop. Z | 59 | 44 |
| Phys.-Coop. ERB-RX | 25 | 28 |
| Econ.-Coop. S | 33 | 48 |

1954-1955

| TEST | SCORE E.A. | %ile |
|---|---|---|
| Eng.-Coop. RX | | |
| A-Mech. of Exp. | 53 | 24 |
| C2-Read. Comp. | 65 | 63 |
| Vocab. | 59 | 51 |
| Speed | 67 | 67 |
| Level | 66 | 67 |
| Trig.-Coop. U | 61 | 54 |
| Chem.-Coop. ERB-SX | 45 | 40 |
| Crary Amer. Hist.-AM | 11.5 | 46 |




CUMULATIVE RECORD FOR INDEPENDENT SCHOOLS — EDUCATIONAL RECORDS BUREAU — 21 AUDUBON AVENUE, NEW YORK 32, N. Y.

**FORM 10B (Front).**

| NAME | M. F. | BIRTHDATE—PLACE | GEN'L HEALTH | RELIGION | RACE OR NAT'L'TY | OCCUPATION | ADDRESS |
|---|---|---|---|---|---|---|---|
| NICHOLS FRANK C. | | 1-3-37 ST. LOUIS, MO. | GOOD | PROTESTANT | AMERICAN | STUDENT | 535 RIVER AVENUE, CLAYTON, MO. |
| FATHER: NICHOLS, T. D. | | 6-15-08 DAYTON, OHIO | GOOD | " | ENGLISH-AMER. | SALES MANAGER EASTERN PRODUCTS CO | RES. 535 RIVER AVENUE, CLAYTON, MO. BUS. 2348 PARK STREET, ST. LOUIS, MO. |
| MOTHER: NICHOLS, JANET BAUER | | 10-4-13 MILWAUKEE, WIS. | FAIR | " | GERMAN-AMER. | HOUSEWIFE | RES. 535 RIVER AVENUE, CLAYTON, MO. BUS. |
| STEP-PARENT OR GUARDIAN | | | | | | | RES. BUS. |

LANGUAGE SPOKEN IN HOME BEFORE 10— ENGLISH AFTER 10— ENGLISH

TYPE OF COMMUNITY BEFORE 10— RESIDENTIAL AFTER 10— RESIDENTIAL

IF PARENTS SEPARATED GIVE DATE

| YEAR AND AGE | 1949-50 13 | 1950-51 14 | 1951-52 15 | 1952-53 16 | 1953-54 17 | 1954-55 18 |
|---|---|---|---|---|---|---|
| ADVISER | EVANS | EVANS | PEARCE | PEARCE | DUELL | DUELL |
| ATTENDANCE | A FREQUENT ABSENCES BECAUSE OF ILLNESS T | A ONE WEEK—TONSILECTOMY T | A FOUR DAYS ABSENCE DURING YEAR T | A REGULAR ATTENDANCE T | A REGULAR T | A REGULAR T |
| DISCIPLINE | ERRATIC LACKS INTEREST | FAIR | LIKEABLE YOUNGSTER BUT NOT VERY DEPENDABLE | FAIR | STILL LACKS SELF-DISCIPLINE | ATTITUDE CONSIDERABLY MORE MATURE THIS YEAR |
| HOME INFLUENCES AND COOPERATION | SEEMINGLY GOOD HOME BACKGROUND PARENTS ARE WIDELY TRAVELED AND INTELLIGENT | GOOD COOPERATION MOTHER SUPERVISES SON CAREFULLY | REASONABLY GOOD FATHER AWAY A GOOD DEAL MOTHER MAY BE OVERPROTECTIVE | REAL DESIRE TO COOPERATE, BUT SOME DISAGREEMENT BETWEEN PARENTS OVER PRESSURE TO BE PUT ON BOY | FAIR SOME TENSION IN HOME | GOOD COOPERATION PARENTS HOPE SON WILL GO TO COLLEGE |
| MENTAL AND EMOTIONAL | FAIR INTELLIGENCE BUT WASTES TIME DAY DREAMING | HAS DIFFICULTY CONCENTRATING ON HIS WORK NOT MUCH DRIVE | HAS FAIR ABILITY BUT TENDS TO GIVE UP WHEN THE WORK IS DIFFICULT | STILL SOMETHING OF A DAY DREAMER EXCEPT WHEN INTERESTED AS HE WAS IN MATH. THIS YEAR | AVERAGE ABILITY, BUT BELOW AVERAGE EFFORT, ALTHOUGH HE IS IMPROVING | STILL EASY GOING, BUT IS SHOWING BETTER GENERAL INTEREST AND EFFORT |
| PHYSICAL AND ATHLETIC | FAIR HEALTH EXCEPT FOR FREQUENT COLDS INTERESTED IN ALL SPORTS | HEALTH BETTER SINCE TONSILS OUT THIS FALL IMPROVING IN ATHLETICS | GOOD HEALTH GROWING RAPIDLY ACTIVE IN BASKETBALL AND BASEBALL | GOOD HEALTH LARGE, STRONG BOY SPENDS MUCH TIME IN SPORTS | VERY GOOD HEALTH ON BASKETBALL TEAM OUT FOR FOOTBALL | GOOD HEALTH BASKETBALL FOOTBALL |
| EXTRA-CURRICULAR ACTIVITIES AND INTERESTS | SCOUTS SUMMER CAMP | SCOUTS | SUMMER CAMP HUNTING & FISHING LIKES TO TINKER WITH OLD MOTORS | RIFLE CLUB SPENDS MUCH TIME WATCHING TELEVISION | RIFLE CLUB PLAYED ON TOWN BASKETBALL TEAM DURING SUMMER | RIFLE CLUB ALL SPORTS BOATS |
| NOTABLE ACCOMPLISHMENTS AND EXPERIENCES | HAS TRAVELED WIDELY WITH PARENTS | WENT TO EUROPE WITH PARENTS DURING THE SUMMER | | WORKED WITH BOY FRIEND BUILDING "HOT ROD" DURING SUMMER | | WORKED IN MANUFACTURING PLANT THREE MONTHS PAST SUMMER |
| EDUCATIONAL PLANS | NONE AS YET | NONE | NO DEFINITE PLANS BEYOND HIGH SCHOOL GRADUATION | NO PLANS FOR COLLEGE THINKS HE WILL GO TO WORK AFTER HIGH SCHOOL | PLANS NOT CLARIFIED WOULD LIKE TO GO TO COLLEGE IF HE COULD MAKE THE BASKETBALL TEAM | NO DEFINITE EDUCATIONAL PLANS BUT TALKS OF PREPARING FOR BUSINESS CAREER LIKE HIS FATHER'S |
| PERSONALITY RATINGS +2 | | | | | | |
| +1 | | | | | | |
| 0 | | | | COOPERATION | | |
| -1 | SOMEWHAT DISORGANIZED | AVERAGE FOR BOYS HIS AGE | HAPPY-GO-LUCKY YOUNGSTER | | RELAXED AND CARELESS | PLEASANT BUT NOT FORCEFUL |
| -2 | | | | INITIATIVE, WORKMANSHIP INDUSTRY, | | |

REMARKS GENERAL SCHOLASTIC APTITUDE AND ACHIEVEMENT SOMEWHAT BELOW AVERAGE FOR HIS GROUP. HAS MUCH INTEREST AND ABILITY IN SPORTS BUT LACKS MENTAL DRIVE. IS POPULAR WITH HIS CLASSMATES, BUT IS NOT A LEADER.

**FORM 10B (Back).**

NAME Crawford, John S. | BIRTHDATE 2-9-36

| | | | | | | |
|---|---|---|---|---|---|---|
| YEAR | 1951-1952 | 1952-1953 | 1953-1954 | 1954-1955 | | |
| SCHOOL | Underhill | | | | | |
| GRADE | 9 9 | 10 10 | 11 11 | 12 12 | | |
| MENTAL AGE | | | | | | |
| CHRON. AGE | 16 | 17 | 18 | 19 | | |

## SUBJECTS, GRADES AND CREDITS

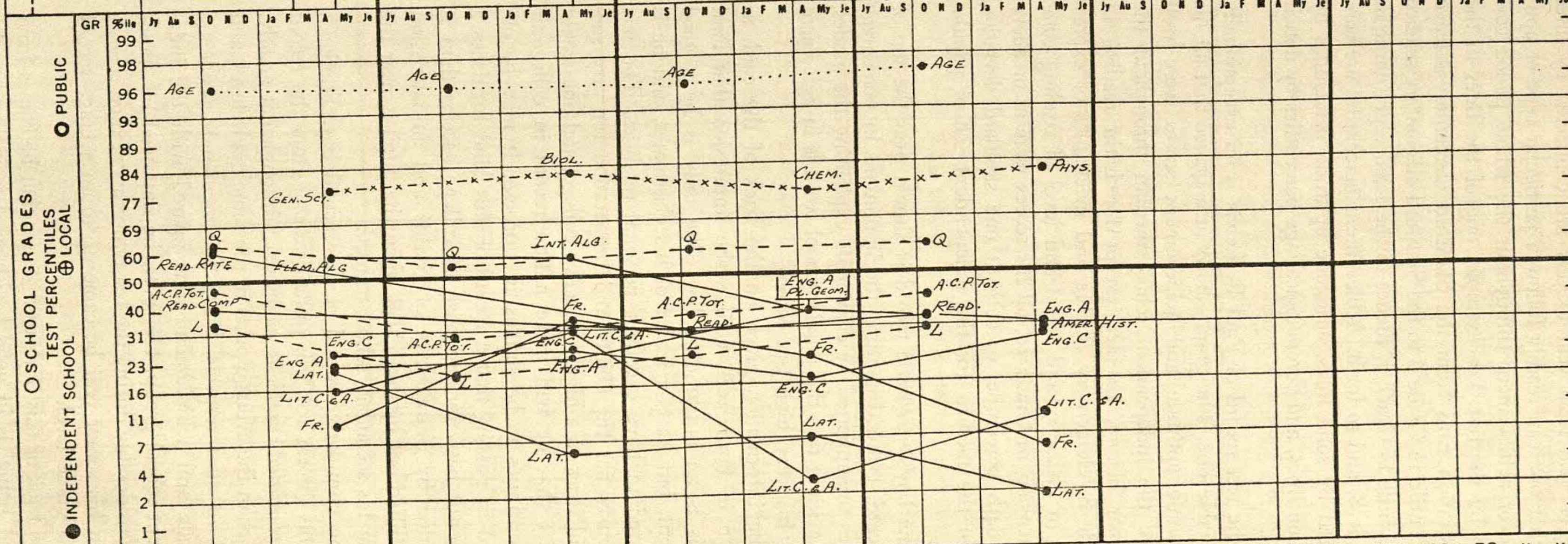
| SUBJECT | SUBJECT | SUBJECT | SUBJECT | SUBJECT | SUBJECT |
|---|---|---|---|---|---|
| | | | | | |

## ACADEMIC APTITUDE

| Year | TEST | SCORE M.A. | I.Q. | %ile |
|---|---|---|---|---|
| 1951-1952 | Amer. Council Psych.-1946 Tot | 82 | | 47 |
| | Q-Score | 38 | | 62 |
| | L-Score | 44 | | 35 |
| 1952-1953 | Amer. Council Psych.-1952 Tot | 88 | | 30 |
| | Q-Score | 42 | | 53 |
| | L-Score | 46 | | 19 |
| 1953-1954 | Amer. Council Psych.-1949 Tot | 101 | | 35 |
| | Q-Score | 45 | | 58 |
| | L-Score | 56 | | 24 |
| 1954-1955 | Amer. Council Psych.-1954 Tot | 103 | | 42 |
| | Q-Score | 43 | | 59 |
| | L-Score | 60 | | 31 |

## ACHIEVEMENT TEST SCORES AND PERCENTILES

| Year | TEST | SCORE E.A. | %ile |
|---|---|---|---|
| 1951-1952 | Diag. Read. Survey-G Rate / Tot Comp | 27.7 / 38 | 61 / 41 |
| | Eng.-Coop S | | |
| | A-Mech of Exp. | 43 | 22 |
| | C1-Read Comp. | 47 | 25 |
| | Lit. Comp. & App.-Coop R | 49 | 16 |
| | Fr. Coop Q Gr. 9-1 yr Elem. | 29 | 10 |
| | Lat. Coop Q Gr. 9-2 yrs Elem. | 51 | 21 |
| | Elem. Alg.-Coop S | 61 | 57 |
| | Gen. Sci.-Coop Y | 65 | 79 |
| 1952-1953 | Eng.-Coop Z | | |
| | A-Mech of Exp. | 45 | 24 |
| | C2-Read Comp. | 51 | 25 |
| | Lit. Comp. & App.-Coop T | 54 | 31 |
| | Fr. Coop P Gr. 10-2 yrs Adv. | 59 | 34 |
| | Lat. Coop R Gr. 10-3 yrs Adv. | 49 | 6 |
| | Int. Alg.-Coop Y | 62 | 57 |
| | Biol. Coop ERB-TX | 112 | 83 |
| 1953-1954 | Iowa Sil. Read. Mo. Sc. Adv. Am | 172 | 31 |
| | Eng.-Coop Y | | |
| | A-Mech of Exp. | 54 | 36 |
| | C2-Read. Comp. | 51 | 17 |
| | Lit. Comp. & App.-Coop R | 47 | 3 |
| | Fr. Coop R Gr. 11-3 yrs Adv. | 64 | 23 |
| | Lat. Coop Q Gr. 11-4 yrs Adv. | 64 | 7 |
| | Pl. Geom.-Coop Z | 56 | 36 |
| | Chem. Coop ERB-RX | 80 | 77 |
| 1954-1955 | Iowa Sil. Read. Mo. Sc. Adv. Cm | 179 | 34 |
| | Eng.-Coop RX | | |
| | A-Mech of Exp. | 55 | 31 |
| | C2-Read. Comp. | 56 | 29 |
| | Lit. Comp. & App. Coop T | 52 | 10 |
| | Fr. Coop Q Gr. 12-Tot Adv. | 66 | 6 |
| | Lat. Coop R Gr. 12-Tot Adv. | 55 | 2 |
| | Phys. Coop ERB-SX | 49 | 82 |
| | Crary Amer. Hist.-Am | 110 | 30 |




CUMULATIVE RECORD FOR INDEPENDENT SCHOOLS — EDUCATIONAL RECORDS BUREAU — 21 AUDUBON AVENUE, NEW YORK 32, N. Y.

**FORM 10C.**

subject field from year to year are connected by lines so that one can readily follow a particular type of aptitude or achievement throughout the whole period covered by the test. For example, one of the lines in the illustration runs from the Stanford elementary science percentile in Grade 6 to the Stanford elementary science percentile in Grade 7, thence to the science percentile in Grade 8, and so forth. Achievement percentiles are connected by solid lines, academic aptitude percentiles by broken lines, and chronological age percentiles by dotted lines.

The test record of Paul R. Lewis is an exceptionally favorable one. The graph shows at a glance that all his academic aptitude and achievement scores were well above the independent school median throughout the six-year history. In fact, except for Latin reading in Grade 8, elementary algebra and mechanics of expression in Grade 9, and speed and level of reading comprehension in Grade 10, all his scores were at or above the 84th percentile, or at least one standard deviation above the median for the independent school population.

The boy's scholastic record is shown near the top of the card. Notwithstanding the limitations in percentage grades unsupported by comments explaining the grades, it is evident that the pupil's school work is in agreement with his very high test record.

The information given on the back of the card, as shown in Form 10A, verifies the impression that Paul Lewis is an outstanding boy. Not only is he a good student, but he is a leader of his classmates, and he is reported to have excellent personal qualities. The boy obviously has the ability and preparation for very successful work in a highly selective college, and one would predict that he will make a fine record in college if he continues to be serious in purpose. It may be observed in passing that a record of this kind furnishes a far better basis for prognosis of college success than is provided by a transcript of credits and an admission form filled out by the school when the pupil is near the end of his secondary school course.

The cumulative record of the second boy, Frank C. Nichols (Form 10B), is quite different from the record just examined. Frank is somewhat, although not greatly, older than the average pupil of the same grade level, and he is, in most respects, below the median in academic aptitude and achievement as compared with the independent school group. However, he improved his standing considerably during the last two years of high school, and in his senior year he came up to an average record for his grade level.

The back of this boy's card shows that he comes from a good home, is in good health, and is inclined to be athletic, that he has had advantages of travel and other experiences, but that he is easygoing, lacks initiative, and has as yet no thoroughly defined goal. It seems unlikely that this boy would profit by college attendance, although he might make a reasonably creditable record in a college whose student body is not highly selected if he had a definite objective in life. An attempt should be made to determine his vocational interests by means of interviews, the Strong Vocational Interest Blank, the Kuder Preference Record, and other procedures.

As a rule, there is considerable correlation in the results of the different tests so that the points plotted to represent the scores of a pupil tend to fall in the same general area in the graph. Occasionally, however, the graph of percentiles brings out clearly special aptitudes for certain subjects that might otherwise be undiscovered. For example, consider the test record of John S. Crawford (Form 10C). This boy's scores on most of the tests taken during a four-year period are in the lower half of the scores of the independent school group, but his scores on the science tests, general science, biology, chemistry, and physics, are all in the highest fourth of the independent school distributions for these subjects. Obviously, as far as knowledge is concerned, the prognosis for this boy's success is much better in science than in the other subjects in which he was tested, although he is also somewhat better in mathematics than in the rest of the subjects.

### THE AMERICAN COUNCIL FORMS

The American Council cumulative record folders which were prepared by the Smith committee differ from earlier forms of this kind in that they place less emphasis on subjects, credits, and marks and more emphasis on behavior descriptions and evaluation of personal qualities. They also allow more space for synthesis and interpretation. An illustrative case, entered on the record card for junior and senior high schools is shown in Form 11.

It will be seen that the card makes provision for a six-year record, which would ordinarily include Grades 7 to 12. There is space near the top of the first page for a summary of the previous school record and for two photographs, the first of which would presumably have been obtained near the time of entrance to the junior high school and the second of which would show the pupil shortly before graduation from high school.

It is intended that the record of academic achievement will consist of much more than grades and credits. Five columns are provided under each year so that each teacher may, if it seems feasible, appraise the pupil with

respect to such types of development as work habits, ability to think logically, mastery of technique, oral and written communication, and overall achievement in the course. If it seems desirable to estimate achievement at the end of each semester, one of these categories can be dispensed with and two of the five columns may be used for appraisal of achievement. The indications of kinds of evaluation are intended as suggestions only and the committee has purposely left the headings to be filled in by the school so that this portion of the card will be quite flexible and can be made to fit into the local situation.

Considerable space in the center of the card is allowed for the record of test scores in three areas—academic aptitude, reading, and achievement. Results of other tests, such as personality or interest tests, might also be entered in the space provided for the achievement tests.

Below the test record, space is provided for the interpretation of test results and their relation to academic achievement on a two-year basis. An alternate form of the card is printed in which this space has been given over to a percentile graph for schools which prefer a graphic, as well as a tabular, record of the test results.

Considerable space near the bottom of the front side of the card is allowed for interests and experiences, educational and occupational plans, health and physical characteristics, and discipline. There is also a small segment for an indication of financial aid. Attendance accounts for only a very limited area, since a detailed attendance report is not important for purposes of the cumulative record. The main purpose of noting attendance in a personnel form is to provide a notation of long periods of absence or of frequent tardiness, since these items of information sometimes help in the interpretation of problems of pupil adjustment.

The top portion of the back of the card gives pertinent information concerning home background and family history. Most of the back of the card is taken up with an extensive description of behavior, to which all staff members who are well acquainted with the pupil should contribute. The description of behavior closely parallels the behavior description form developed during the Eight-Year Study of the Progressive Education Association by a committee of which Dr. Eugene Smith was chairman. Notes and postschool and follow-up information complete the card.

The sample record for Martin Lee Robbins shows how the form may be used to present a comprehensive history of the development of an individual pupil during the junior and senior high school years. This boy entered Grade 7 of the Gillispie Junior High School at the age of 11 years, 9 months, after attendance from the kindergarten to the sixth grade at the Packer Elementary School. His work had been average in the elementary school and no special learning difficulties had been noted. He was thought to be in rather poor health. He progressed at a regular rate through the junior and senior high schools, making passing grades in all subjects. During this period, he had three counselors, one throughout the junior high school, another for Grades 10 and 11, and a third for his senior year.

The record of academic achievement in this school system was based on a three-step scale—H for high, U for usual, and L for low. Ratings were assigned in each subject for work habits, ability to think logically, and oral and written communication; achievement marks, in terms of H, U, and L, were assigned at the end of each semester. This boy was rated U in most respects, although he received a number of H's, particularly in mathematics, and several L's, especially in oral and written communication. His ratings for academic achievement tended to be a little better in the senior high school than in the junior high school.

On the whole, the boy had approximately an average test record with rather high percentiles predominating in mathematics. His percentiles in language usage and mechanics of expression were low in the earlier years but they increased somewhat near the end of the high school period.

The boy was small and frail when he entered the junior high school. He was of a nervous temperament and tended to try to compensate for his smallness and weakness in comparison with the other boys by being noisy and by adopting a rather belligerent attitude. His attendance was quite irregular at first because of illness. During the senior high school period, the boy grew rapidly and his health became much improved. These physical factors in turn affected his personality, and he became much more mature, assured, and generally likable.

No clear-cut educational or vocational interests were reported by the boy while he was in junior high school, but during the last two years of senior high school he developed a definite interest in electrical engineering. He had some valuable summer work experiences during the senior high school period.

Martin's home situation was not favorable. He was one of five children in a family whose economic circumstances were somewhat inferior. His mother and father had been separated shortly before he entered the junior high school, and his father thenceforth saw his family infrequently and took little interest in their support. This situation had a marked effect upon the boy, especially during the first two years of the junior high school.

The description of behavior for this student shows how the judgments of different teachers can be brought together and coördinated to show variations in behavior

| LAST NAME | FIRST | MIDDLE | NICKNAME | RELIGION | DATE AND PLACE OF BIRTH | SEX | COLOR |
|---|---|---|---|---|---|---|---|
| ROBBINS, | MARTIN | LEE JR. | | BAPTIST | 12-12-37 PHILADELPHIA, PA. | (M) F | (W) C Y |

ADDRESS AND TELEPHONE: 4127 SOUTH 26TH STREET — MAIN 4-9605

PHOTOS (Dated)

**PREVIOUS SCHOOL RECORD: Names and Types of Schools Attended, Achievement in Subjects and Activities, School Difficulties Encountered, Summary of Test Results**

ATTENDED PACKER ELEMENTARY SCHOOL FROM KINDERGARTEN THROUGH 6B. DID VERY WELL IN ARITHMETIC AND SOCIAL STUDIES. DID AVERAGE WORK FOR HIS ABILITY IN OTHER SUBJECTS. NO SPECIAL LEARNING DIFFICULTIES EXCEPT IN LANGUAGE USAGE. HEALTH RATHER DELICATE

PHOTOS (Dated)

| Name and Type of School Attended | COUNSELOR | AGE (As of Sept. 1) | SCHOOL YEAR AND GRADE |
|---|---|---|---|
| GILLISPIE JR. H.S. | MILDRED D. CARSON | 11-9 | 7A 1949-50 7B |
| SAME | SAME | 12-9 | 8A 1950-51 8B |
| SAME | SAME | 13-9 | 9A 1951-52 9B |
| ROOSEVELT SR. H.S. | G. L. OWEN | 14-9 | 10A 1952-53 10B |
| SAME | SAME | 15-9 | 11A 1953-54 11B |
| SAME | HARLAN KENT | 16-9 | 12A 1954-55 12B |

**ACADEMIC ACHIEVEMENT**

These columns are for analyses of development in fields indicated. Headings might include work habits, ability to think logically, mastery of technique, oral and written communication and some estimate of achievement. H = HIGH, U = USUAL, L = LOW

**7A 1949-50 7B**

| Subject | Work Habits | Ability to Think | Communication | Ach. 1st Sem. | Ach. 2nd Sem. |
|---|---|---|---|---|---|
| English: Written Exp. | U | U | U | U | U |
| English: Oral Exp. | L | U | L | L | L |
| Math.: Gen. Math. | H | H | U | H | U |
| Social Studies: Social Studies | U | U | L | U | L |
| Other Subjects: Art | L | U | U | L | U |
| Other Subjects: Mech. Draw. | U | U | U | U | |
| Other Subjects: Woodwork | H | U | U | | H |
| Other Subjects: Music | U | | | U | U |
| Other Subjects: Physical Education | L | | | L | L |

**8A 1950-51 8B**

| Subject | Work Habits | Ability to Think | Communication | Ach. 1st Sem. | Ach. 2nd Sem. |
|---|---|---|---|---|---|
| English: Written Exp. | U | U | L | U | U |
| English: Oral Exp. | U | U | L | L | U |
| English: Literature | U | U | U | U | U |
| Math.: Gen. Math. | U | H | U | U | H |
| Science: Gen. Science | L | H | U | U | L |
| Social Studies: Social Studies | L | U | L | L | U |
| Other Subjects: Art | L | U | L | L | L |
| Other Subjects: Mech. Draw. | U | U | U | | U |
| Other Subjects: Music | U | | | U | U |
| Other Subjects: Physical Education | L | | | L | L |

**9A 1951-52 9B**

| Subject | Work Habits | Ability to Think | Communication | Ach. 1st Sem. | Ach. 2nd Sem. |
|---|---|---|---|---|---|
| English: Written Exp. | U | U | U | U | U |
| English: Oral Exp. | U | U | L | U | U |
| Lang.: Latin | L | U | L | L | U |
| Math.: El. Algebra | U | H | H | U | H |
| Science: Gen. Science | U | U | U | U | U |
| Other Subjects: Physical Education | U | | | L | U |

**10A 1952-53 10B**

| Subject | Work Habits | Ability to Think | Communication | Ach. 1st Sem. | Ach. 2nd Sem. |
|---|---|---|---|---|---|
| English: Written Exp. | U | H | U | U | H |
| English: Oral Exp. | U | U | U | U | U |
| Lang.: Latin | U | U | U | U | U |
| Math.: Plane Geom. | H | H | U | H | H |
| Science: Biology | U | U | L | U | U |
| Other Subjects: Physical Education | U | | | U | L |
| Other Subjects: Metal Work | U | U | | U | U |

**11A 1953-54 11B**

| Subject | Work Habits | Ability to Think | Communication | Ach. 1st Sem. | Ach. 2nd Sem. |
|---|---|---|---|---|---|
| English: Literature | H | H | U | H | U |
| Lang.: French | U | U | U | U | U |
| Math.: Algebra II | H | H | U | H | H |
| Science: Chemistry | H | H | U | U | H |
| Social Studies: Problems of Democracy | U | U | U | | U |
| Other Subjects: Physical Education | U | | | U | U |

**12A 1954-55 12B**

| Subject | Work Habits | Ability to Think | Communication | Ach. 1st Sem. | Ach. 2nd Sem. |
|---|---|---|---|---|---|
| English: Written Exp. | U | U | U | U | U |
| English: Oral Exp. | U | U | U | U | U |
| Lang.: French | H | U | U | H | U |
| Science: Physics | H | H | U | U | H |
| Social Studies: American History | U | U | H | U | U |
| Other Subjects: Physical Education | H | | | U | H |

**TEST RECORD**

| Year | Test | Mo. | Score | % ile |
|---|---|---|---|---|
| 1949-50 | ACADEMIC APTITUDE (Use M. A. and I. Q. if Preferred): KUHLMANN-ANDERSON | 0 | M.A. 13-10 | 21 |
| | | | I.Q. 117 | 40 |
| | READING: TRAXLER SILENT-1 | 0 | 91 | 44 |
| 1950-51 | ACADEMIC APTITUDE: CALIF. SHORT FORM MENTAL MAT. - INTER. TOT. MENT. FACT. | 0 | M.A. 14-1 | 25 |
| | | | I.Q. 110 | 38 |
| | READING: TRAXLER SILENT-2 | 0 | 94 | 35 |
| 1951-52 | ACADEMIC APTITUDE: AMER COUNCIL PSYCH. - 1947 | 0 | 80 | 39 |
| | READING: IOWA SIL. - ADV. AM | 0 | 167 | 55 |
| 1952-53 | ACADEMIC APTITUDE: AMER. COUNCIL PSYCH. - 1952 | 0 | 95 | 42 |
| 1953-54 | ACADEMIC APTITUDE: AMER COUNCIL PSYCH. - 1948 | 0 | 110 | 48 |
| | READING: DIAG. READ. SURVEY-E RATE | 0 | 225 | 27 |
| | READING: DIAG. READ. SURVEY-E TOT. COMP. | | 72 | 46 |
| 1954-55 | ACADEMIC APTITUDE: AMER. COUNCIL PSYCH. - 1954 | 0 | 110 | 52 |

FORM 11 (Front).

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| ACHIEVEMENT AND OTHER TESTS | Met. Ach.-R (Mo. P.S.) | M | 9.9 | 43 | Met. Ach.-S (Mo. P.S.) | M | 10.7 | 40 | Eng.-Coop. Q | AP | Scaled | | Eng.-Coop. RX | AP | Scaled | — | Eng.-Coop. S | AP | Scaled | | Eng.-Coop. T | AP | Scaled | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reading | | 228 | 41 | Reading | | 230 | 34 | A-Mech. of Exp. | | 43 | 18 | A-Mech. of Exp. | | 49 | 28 | A.-Mech. of Exp. | | 54 | 34 | A-Mech. of Exp. | | 58 | 43 |
| | Vocabulary | | 231 | 35 | Vocabulary | | 238 | 38 | C1-Read. Comp. | | 51 | 41 | C2-Read. Comp. | | 54 | 57 | C2-Read. Comp. | | 64 | 69 | C2-Read. Comp. | | 62 | 58 |
| | Arith. Fund. | | 291 | 76 | Arith. Fund. | | 298 | 67 | Lat.-Coop. Q-Elem. Tot. | Ap. | 49 | 30 | Lat.-Coop. R-Adv. Tot. | Ap. | 59 | 46 | Fr.-Coop. S-Low Tot. | Ap. | 44 | 42 | Fr. Coop. O-Adv. Tot. | Ap. | 63 | 50 |
| | Arith. Prob. | | 259 | 70 | Arith. Prob. | | 264 | 64 | Reading | | 50 | 29 | Reading | | 53 | 50 | Comp. & Gram. | | 41 | 39 | Reading | | 57 | 50 |
| | English | | 218 | 9 | English | | 222 | 7 | Vocabulary | | 44 | 27 | Vocabulary | | 59 | 42 | Civil | | 48 | 45 | Vocabulary | | 63 | 44 |
| | Literature | | 229 | 37 | Literature | | 231 | 39 | Grammar | | 54 | 40 | Grammar | | 61 | 50 | Minn. Paper Fm. Bd. | Ap. | 47 | 75 | Grammar | | 68 | 66 |
| | Science | | 244 | 65 | Science | | 244 | 53 | Elem. Alg.-Coop. Q | Ap. | 68 | 74 | Pl. Geom.-Coop. R | Ap. | 71 | 84 | Int. Alg.-Coop. S | Ap. | 67 | 85 | Amer. Hist.-Coop. Z | Ap. | 60 | 37 |
| | Spelling | | 216 | 19 | Spelling | | 231 | 20 | Gen. Sci.-Coop. Q | Ap. | 56 | 46 | Biology-Coop. X | Ap. | 58 | 35 | Chemistry-Coop. Y | Ap. | 67 | 64 | Physics-Coop. Z | Ap. | 66 | 56 |

| | | | | | | |
|---|---|---|---|---|---|---|
| INTERPRETATION OF TEST RECORD AND ITS RELATION TO ACADEMIC ACHIEVEMENT (In the interpretation of test scores consider differences in norms used. In transferring records indicate basis of norms) | This boy is fairly high in academic aptitude. His class work and his test scores are on the whole about average. He is retarded in mechanics and effectiveness of oral and written communication. On the other hand, he is a promising mathematics student. | | Martin is still approximately average in school work and test scores. Good ability in mathematics is offset by weakness in oral and written communication, but he is improving in the latter area. | | This boy has shown more than normal growth in his school work during the last two years and is now somewhat above average scholastically. He has made noteworthy improvement in communication. Mathematics continues to be his best field. | |
| ATTENDANCE (Reasons if irregular) | Attendance irregular because of illness | Fair | Absent one month with scarlet fever | Fair-some illness | Good | Good |
| **SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS THAT GIVE EVIDENCE REGARDING INTERESTS AND POWERS** | | | | | | |
| INTERESTS REPORTED BY STUDENT | Reading | Boy Scouts | Fishing | Reading and elementary experiments in electricity | Electrical Engineering | Electrical Engineering Rating of A for Engineer on Strong Blank |
| EXPERIENCES IN SCHOOL | | Made scenery for school play | | Glee Club<br>Metal Club | Glee Club<br>Senate | Glee Club<br>Basket Ball |
| OUT OF SCHOOL AND SUMMER EXPERIENCES | Camp | Camp | Camp | Worked as messenger | Worked on farm | Worked for Electrical Service Company |
| **NOTE TYPE, DURATION, HOURS PER WEEK, EARNINGS AND OTHER SIGNIFICANT FACTS** | | | | | | |
| WORK EXPERIENCES | None | None | Carried paper route each evening | Eight weeks work in summer as Western Union Messenger at $30 a week | Two months work on farm during summer Board, room and $50 a month | Work in wiring division of Electrical Company 12 weeks during summer $1.50 an hour. |
| FINANCIAL AID (Type and Amount) | | | | | | |
| Educational and Occupational Plans by { Pupil, Parents, Counselor | Pupil and parents have no plans. Boy is quick at arithmetic and should do well in some type of office work. | No definite plans The boy is good in mathematics and uses his hands well | Plans not matured Boy likes mechanical problems in which he can use his knowledge of mathematics | Likes mathematics and shop work - particularly metals | Martin thinks he would like to study to become an electrical engineer. His interests and aptitudes would seem to fit him for this field | Has applied for Carnegie Tech. Wants to study electrical engineering |
| HEALTH AND PHYSICAL CHARACTERISTICS (Vigor or lassitude; assets disabilities or limitations) | Very small for age Tires easily Complains of pains in legs | Still small and thin Does not look well Interviewed mother and asked her to have complete physical exam. | Growth retardation still evident. Not much endurance Needs frequent rest. Mother is cooperating in health program for him. | Health and general physical appearance beginning to show improvement | Gained 4 inches in height and 20 pounds in weight within last year. Is still below average size but looks much better | Continued improvement in general health and physique. Looks fit and is taking an interest in sports. |
| DISCIPLINE { Academic, Personal | Nervous and restless and rather shy | Is becoming noisy Whistles and shouts | Noisy. Picks quarrels with other boys. Seems to try to compensate for small size. | Is trying to overcome noisy habits and is gaining in self-control | Much better self-control Normally mischievous | Shows increased maturity and self-discipline |

**FORM 11 (Front), *Continued*.**

| Family | Type of Occupation | Education Degree and Kind | Religion |
|---|---|---|---|
| ROBBINS | | | |
| **Father** HARVEY N. | GARAGE MECHANIC | TWO YEARS HIGH SCHOOL | BAPTIST |
| **Mother** LAURA | HOUSEWIFE | HIGH SCHOOL GRADUATE | BAPTIST |
| **Step Parent or Guardian** | | | |

| Siblings | Sex | Type of Occupation | Education Degree and Kind | Birthdate |
|---|---|---|---|---|
| RAYMOND | M | REPAIRMAN CON-EDISON | HIGH SCHOOL GRADUATE | 1934 |
| FLORENCE | F | | | 1936 |
| HELEN | F | | | 1939 |
| GEORGE | M | | | 1942 |

**NOTE SIGNIFICANT ITEMS: Health, decease of either parent, birthplaces, citizenship, changes in type of occupation of parents, language spoken, type of community, study conditions or other factors such as "broken home".**

BOTH PARENTS WERE BORN IN THE UNITED STATES AND HAVE SPENT MOST OF THEIR LIVES IN PHILADELPHIA. THEY WERE SEPARATED IN 1948, THE YEAR BEFORE MARTIN ENTERED JUNIOR HIGH SCHOOL. THE FATHER LIVES AT THE Y.M.C.A. HE SELDOM SEES THE FAMILY AND APPARENTLY HAS LITTLE INTEREST IN THEM. MARTIN FEELS THIS STRONGLY. THE MOTHER HAS HAD TO OBTAIN A COURT ORDER TO GET SUPPORT FOR HERSELF AND THE CHILDREN. THE FAMILY LOST THEIR HOME THROUGH THE FATHER'S NEGLECT. THEIR PRESENT RESIDENCE IS IN ONE OF THE POORER AND MORE CROWDED SECTIONS OF THE CITY.

DESCRIPTION OF BEHAVIOR **(Made by all those who have had sufficient opportunity to observe the pupil.)**
Key to persons making the descriptions below: Ad–Advisor, Ag–Agriculture, **Ar–Arts,** D–Dramatics, **E–English, F–French, G–German, HR–Home Room teacher, HE–Home Economics,** L–Latin, **M–Mathematics,** Mu–Music, NS–Natural Science, **SS–Social Science; Others.**

| | Description | | | | | | |
|---|---|---|---|---|---|---|---|
| RESPONSIBILITY | **Responsible and Resourceful:** Carries Through Whatever is Undertaken, and Also Shows Initiative and Versatility in Accomplishing and Enlarging Upon Undertakings. | | | | M | M | |
| | **Conscientious:** Completes Without External Compulsion Whatever is Assigned But is Unlikely to Enlarge the Scope of Assignments. | | M | M | SH | | NS AD |
| | **Generally Dependable:** Usually Carries Through Undertakings, Self-Assumed or Assigned by Others. Requiring Only Occasional Reminder or Compulsion. | M SH | SH | AD | NS AD | NS AD | E F |
| | **Selectively Dependable:** Shows High Persistence in Undertakings in Which There is Particular Interest, But is Less Likely to Carry Through Other Assignments. | MU AD | E SS MU | NS L E | L E | E F SS PE | SS PE |
| | **Unreliable:** Can Be Relied Upon to Complete Undertakings Only When They Are of Moderate Duration or Difficulty and Then Only With Much Prodding and Supervision. | E ART SS | AD ART | PE | PE | | |
| | **Irresponsible:** Cannot Be Relied Upon to Complete Any Undertakings Even When Constantly Prodded and Guided. | PE | PE | | | | |
| CREATIVENESS | **General:** Approaches Whatever He Does With Active Imagination and Originality, So That He Contributes Something That is His Own. | | | | | | |
| | **Specific:** Makes Distinctly Original and Significant Contributions in One or More Fields. | | SH | | SH | NS | NS |
| | **Promising:** Shows a Degree of Creativeness That Indicates the Likelihood of Valuable Original Contribution in Some Field, Although the Contributions Already Made Have Not Proved to Be Particularly Significant. | MU SH | M | NS | NS | E | E |
| | **Limited:** Shows the Desire to Contribute His Own Thinking and Expression to Situations, But His Degree of Imagination and Originality is Not, in General, High Enough to Have Much Influence on His Accomplishments. | E | E ART | E | E | | |
| | **Imitative:** Makes Little or No Creative Contributions, Yet Shows Sufficient Imagination to See the Implications in the Creation of Others and to Make Use of Their Ideas or Accomplishments. | ART | | | | | |
| | **Unimaginative:** Has Given Practically No Evidence of Originality or Creativeness in Imagination or Action. | | | | | | |
| INFLUENCE | **Controlling:** His Influence Habitually Shapes the Opinions, Activities, or Ideals of His Associates. | | | | | | |
| | **Contributing Influence:** His Influence, While Not Controlling, Strongly Affects the Opinions, Activities, or Ideals of His Associates. | SH | SH | M AD | M SH | M E AD | NS AD PE |
| | **Varying:** His Influence Varies, Having Force When Particular Ability, Skill, Experience or Circumstance Gives it Opportunity or Value. | M SS AD E | M E AD | NS L E | NS E AD | NS SS PE | SS E F |
| | **Co-Operating:** Has No Very Definite Influence on His Associates, But Contributes to Group Thinking and Action Because of Some Discrimination in Regard to Ideas and Leaders. | MU ART | SS MU | PE | L PE | F | |
| | **Passive:** Has No Definite Influence on His Associates, Being Carried Along by the Nearest or Strongest Influence. | PE | PE ART | | | | |
| ADJUSTABILITY | **Secure:** Appears to Feel Secure in His Social Relationships and is Accepted by the Groups of Which He is a Part. | | | | | | AD NS |
| | **Uncertain:** Appears to Have Some Anxiety About His Social Relationships Although He is Accepted by the Groups of Which He is a Part. | | SH | M | M AD NS SH | M NS AD SS | E SS PE |
| | **Neutral:** Shows the Desire to Have an Established Place in the Group, But is, in General, Treated With Indifference. | M MU SS | M AD MU SS | NS E L PE AD | E L PE | F E PE | F |
| | **Withdrawn:** Withdraws From Others to an Extent That Prevents His Being a Fully Accepted Member of His Group. | SH AD E | E | | | | |
| | **Not Accepted:** Has Characteristics of Person or Behavior That Prevent His Being an Accepted Member of His Group. | PE ART | PE ART | | | | |

**Form 11 (Back).**

| | | | | | | |
|---|---|---|---|---|---|---|
| **CONCERN FOR OTHERS** Generally Concerned: Shows Balance in Considering Welfare of Himself and Others and Does What He Can About it. | | | | | | |
| Selectively Concerned: Shows Concern by Attitude and Action About Certain Problems of Welfare of Persons. | | | | AD NS | E AD NS | AD SS NS |
| Personal: Is Not Strongly Concerned About the Welfare of Others Unless a Situation Materially Affects Him. | SH | AD SH M MU | M AD E NS | SH M E | SS M PE | E PE F |
| Inactive: Professes Concern About Welfare of Others But Does Nothing. | AD M E SS | E SS | L PE | L PE | F | |
| Unconcerned: Shows Little or No Concern For the Welfare of Others. | MU ART PE | ART PE | | | | |
| **SERIOUS PURPOSE** Purposeful: Has Definite Purposes and Plans and Carries Through to the Best of His Ability Undertakings Consistent With This Purpose. | | | | | NS | SS AD |
| Limited: Makes Plans and Shows Determination in Attacking Short Time Projects That Interest Him But Has Not Yet Thought Out Goals for Himself. | SH | AD M | NS M AD | NS AD SH | F M AD SS | PE NS E |
| Potential: Takes Things as They Come, Meeting Situations Somewhat on the Spur of the Moment Yet May Be Capable of Serious Purpose if Once Aroused. | AD MU M | SH MU | E | M L E PE | PE E | F |
| Vacillating: Makes Plans That Are Fairly Definite, But Cannot Be Counted on for the Determination to Carry Them Through. | E PE ART | ART E PE SS | L PE | | | |
| Vague: Is Likely to Drift Without the Decisiveness and Persistence That Will Enable Him to Carry Out His Vaguely Conceived Plans. | SS | | | | | |

| GRADE | | | | | | |
|---|---|---|---|---|---|---|
| **EMOTIONAL STABILITY** Describe Typical Behavior and Significant Variation in it With Respect to Such Factors as Apathy, Excitability, Over-Sensitiveness, Stability | NERVOUS AND EXCITABLE. SEEMS TO LACK STABILITY. ILL AT EASE WITH ADULTS. | SMALL AND TENSE BECOMES NOISY WHEN EXCITED. WANTS ATTENTION FROM OTHER BOYS HIS AGE | CONTINUES TO BE RESTLESS AND NOISY. SEEMS TO FEEL INSECURE. | IS BEGINNING TO GROW AND IS IMPROVED IN APPEARANCE. SHOWS GREATER CONTROL. LESS GIVEN TO EXHIBITIONISM. | FAVORABLE DEVELOPMENT IN APPEARANCE AND MANNER. IS BECOMING MUCH MORE MATURE AND IS NOW ABLE TO CONTROL HIS EMOTIONS WELL. | SEEMS FAIRLY STABLE AND SELF-CONFIDENT AND HAS AS MUCH POISE AS OTHER BOYS HIS AGE |
| Additional Comments About Behavior | HIS NERVOUS CONDITION IS PROBABLY DUE PARTLY TO ILL HEALTH AND PARTLY TO "BROKEN HOME" CIRCUMSTANCES | HE IS SO UNDERSIZED THAT THE OTHER BOYS TEASE HIM AND MAKE HIM MORE NOISY AND EXCITABLE | NOISY MANNER IS PROBABLY PARTLY AN ATTEMPT TO ESCAPE FROM INSECURE CONDITIONS AT HOME | OUTSIDE WORK SUCH AS THE JOB HE HAD DURING THE SUMMER IS HELPING TO DEVELOP HIS CONFIDENCE AND SELF-RELIANCE | HE IS LITERALLY OUTGROWING HIS CHILDISH MANNERISMS | HE SCARCELY RESEMBLES THE SMALL, SICKLY, NOISY BOY WHO ENTERED SENIOR HIGH SCHOOL THREE YEARS AGO |
| Tentative Synthesis and Suggestions for Guidance Made During, or at Close of, Each School Year | AVERAGE MENTAL ABILITY AND SCHOOL ACHIEVEMENT. VERY IMMATURE PHYSICALLY, EMOTIONALLY & SOCIALLY. HEALTH IS DEFINITELY DELICATE AND NEEDS CAREFUL WATCHING | SCHOOL WORK IS AVERAGE OR A LITTLE BELOW. HE DOES WELL IN MATHEMATICS BUT HIS ENGLISH USAGE IS POOR. HE IS A WIZENED, PALE LITTLE CHAP. THE BOYS CALL HIM "SHRIMP" AND "RUNT" AND HE TRIES TO COMPENSATE BY "SHOWING OFF". TALK TO MOTHER | THE ACADEMIC SITUATION IS FAIRLY SATISFACTORY ALTHOUGH NOT AT ALL OUTSTANDING EXCEPT IN MATHEMATICS. PERSONAL CHARACTERISTICS AND HEALTH CONTINUE TO BE PROBLEMS. SLIGHT IMPROVEMENT IS DUE TO GOOD COOPERATION FROM MOTHER. URGE TEACHERS TO HELP BUILD UP FEELING OF SECURITY. | THE BOY'S IMPROVED PERSONAL QUALITIES THIS YEAR ARE PROBABLY AS MUCH A RESULT OF NATURAL GROWTH FACTORS AS ANYTHING ELSE ALTHOUGH COOPERATION OF MOTHER AND TEACHERS IN HELPING RELIEVE TENSIONS HAS ALSO BEEN VALUABLE | SURPRISINGLY RAPID ALL ROUND DEVELOPMENT THIS YEAR. OUTLOOK IS GOOD UNLESS ECONOMIC AND FAMILY RELATIONSHIPS AT HOME BECOME TOO DIFFICULT | CONTINUED PROCESS OF MATURING. INTEREST IN ELECTRICAL ENGINEERING IS HELPING HIM GET HIS ABILITIES ORGANIZED AND DIRECTED TOWARD A GOAL |

**NOTES:** NOTWITHSTANDING AN UNFAVORABLE PROGNOSIS AT THE BEGINNING OF THE JUNIOR HIGH SCHOOL PERIOD, THIS BOY HAS SHOWN UNUSUALLY RAPID ALL-ROUND DEVELOPMENTS, PARTICULARLY DURING THE LAST TWO AND A HALF YEARS. HE SHOULD MAKE AT LEAST AN AVERAGE RECORD IN THE STUDY OF ELECTRICAL ENGINEERING IN COLLEGE AND SHOULD BE MODERATELY SUCCESSFUL IF HE CHOOSES THAT FIELD AS A LIFE VOCATION. DIFFICULT FINANCIAL PROBLEM IN PLAN TO GO TO COLLEGE. WILL HAVE TO WORK HIS WAY FOR MOST PART, ALTHOUGH OLDER BROTHER HAS PROMISED TO GIVE WHAT FINANCIAL HELP HE CAN. EXPECTS TO ENTER TEMPLE UNIVERSITY IN FALL AND TO HOLD PART TIME JOB WHILE ATTENDING COLLEGE.

**POST SCHOOL AND FOLLOW-UP INFORMATION**

| | Dates |
|---|---|
| College | |
| Other Schools | |
| Work | |
| Marriage | |
| Civic Activities | |

1941 Revision of American Council on Education Cumulative Record Card for Junior and Senior High Schools, Washington, D. C.

**FORM 11 (Back), *Continued.***

in different situations during a single school year and to bring out a pattern of development over a period of years. It is interesting to see that in nearly all the categories for which the behavior description form is applicable, this pupil developed from a low or rather mediocre status in Grade 7 to a fairly high position in Grade 12.

It will be observed that in using the description of behavior, it is not necessary for every teacher of the pupil to provide judgments concerning all aspects of his behavior if there are certain categories concerning which an individual teacher may have little or no information. For example, the mathematics teachers and the social studies teachers did not provide descriptions of the behavior of this pupil under the heading of creativeness since the nature of the subjects taught by these teachers was such that they had little opportunity to observe the pupil in situations calling for creativeness.

As one studies a thorough record of this kind, he acquires a feeling of familiarity with the individual's background, aptitudes, achievement, interests, experiences, and personal qualities, even though he may never have seen the pupil or have known anything concerning him previously. When a record of this kind is supplemented by more informal knowledge and information acquired through acquaintance with the student, it becomes an invaluable basis for sound, well-considered, intelligent counseling.

## NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS CUMULATIVE RECORD

A comparatively recent cumulative record form whose organization is somewhat like that of the American Council forms is the form published by the National Association of Secondary School Principals. This is a six-year record designed to cover the following general areas: academic achievement, test record, personality estimate, health, work experience, interests and activities, data explaining extreme variation between test results and actual achievement in class, educational and vocational plans, attendance, home background, follow-up, and guidance notes. An interesting feature of this form is that the various categories of the record are printed down the center in the manner of a railroad timetable. The purpose of this arrangement is to reduce eye movement and make for easier reading.

## RECORDING TEST SCORES IN TERMS OF A COMMON CRITERION GROUP

For purposes of the cumulative record of test data, some persons prefer a graphic record of test results that is made in terms of *scores* rather than percentiles, so that increments of growth from year to year are more readily apparent. If raw scores are used, it is obviously not advisable to try to graph the results of different tests on the same chart, but if a system of derived scores that take their origin from a common basic group is employed, these scores have elements of comparability that make it feasible to record them on one graph. For example, the Scaled Score system devised for the Cooperative Achievement Tests lends itself readily to such a recording plan, and a graphic record form has been set up for these scores. This form may be used also for academic aptitude or intelligence scores if they are first changed to Scaled Scores. The form is printed on one side of an 8½- by 11-inch sheet, and the back of the page contains instructions for using the form. A copy of this record form is shown in Form 12. The Cooperative test scores of a high school pupil, Mary E. Johnson, have been entered on this Scaled Score graph. Her Scaled Scores, stated numerically, are as follows: English, Test A, Mechanics of Expression, Grade 9, 44; Grade 10, 46; Grade 11, 53; Grade 12, 52; Test $C_2$, Reading Comprehension, Vocabulary, Grade 9, 52; Grade 10, 57; Grade 11, 57; Grade 12, 58; Speed of Comprehension, Grade 9, 59; Grade 10, 58; Grade 11, 65; Grade 12, 68; Level of Comprehension, Grade 9, 58; Grade 10, 52; Grade 11, 66; Grade 12, 67; Total Comprehension, Grade 9, 56; Grade 10, 56; Grade 11, 63; Grade 12, 65; French, Reading, Grade 9, 33; Grade 10, 51; Vocabulary, Grade 9, 44; Grade 10, 46; Grammar, Grade 9, 34; Grade 10, 38; Total, Grade 9, 36; Grade 10, 44; Ancient History, Grade 9, 61; American History, Grade 12, 50; Biology, Grade 10, 60; Physics, Grade 11, 52; Chemistry, Grade 12, 49; Plane Geometry, Grade 10, 69; Elementary Algebra, Grade 9, 60; Intermediate Algebra, Grade 11, 61.

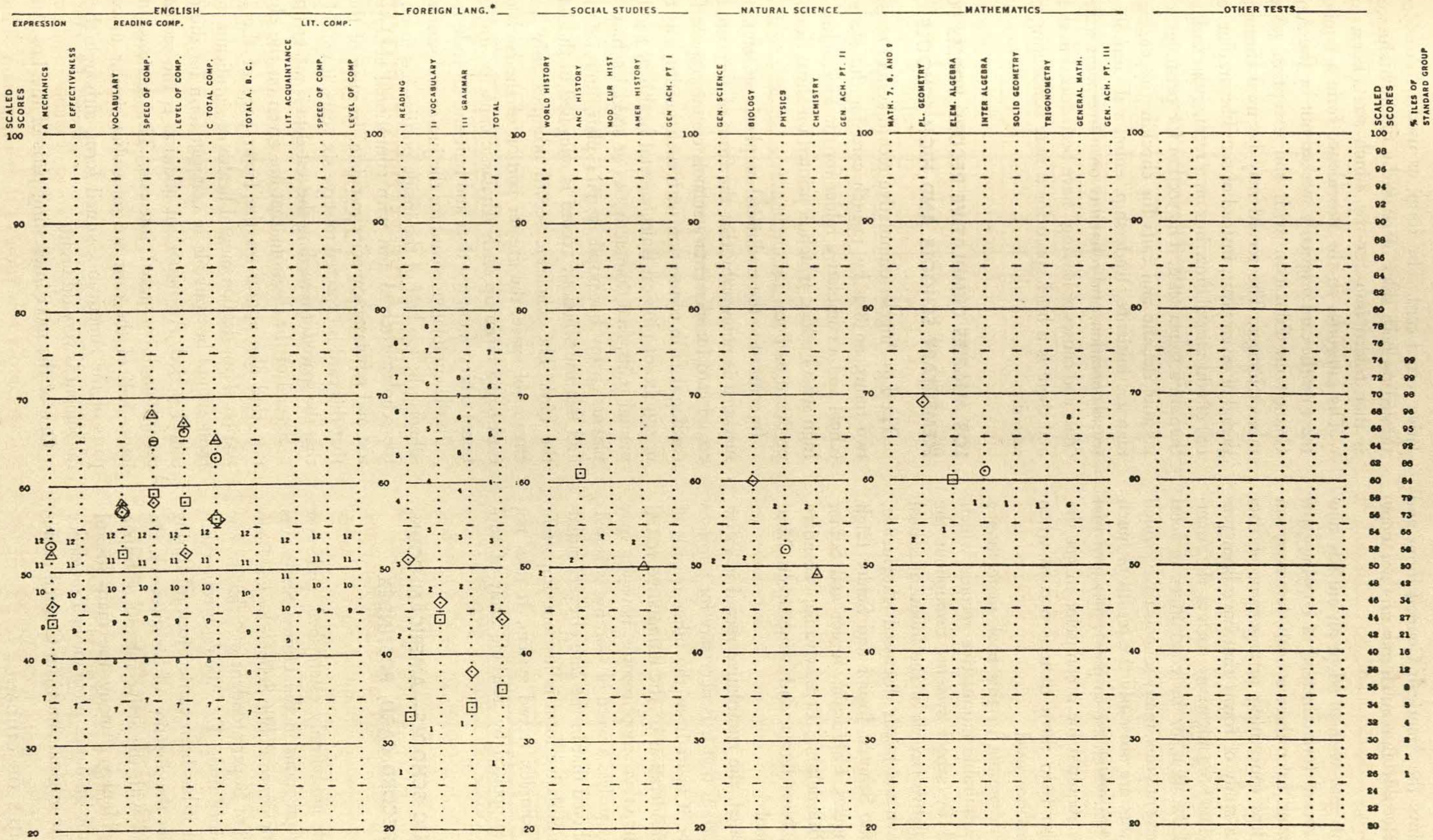
## CUMULATIVE RECORDS EMPLOYED IN DIFFERENT SCHOOL SYSTEMS

A school which is revising its record forms will find it helpful to examine cards which have been published for general distribution, such as those which have just been considered. Some schools may find that records of this kind are so closely adapted to their needs that they can adopt them in their entirety, but no school should decide to take over a ready-made record form without first considering carefully its own objectives and program.

Other schools may find it more desirable to adopt portions of published record forms but to incorporate these portions into a new form of their production. This can

# INDIVIDUAL PROFILE FOR COOPERATIVE ACHIEVEMENT TEST SCORES

Name Johnson, Mary E. (Last, First, Middle) Date of birth 1-1-37 Sex F (M or F) Class of 1955 School Riverview City Philadelphia, Pa.




Notes and Interpretations:

The small figures at the left of each of the scales indicate the median scores, or norms, which correspond to the end of the particular grade indicated for the English Tests. In all other cases the figures indicate norms for semester-of-study groups. The foreign language norms shown are for French. Symbols: Ninth Grade □ Tenth Grade ◇ Eleventh Grade ○ Twelfth Grade △

*Indicates foreign languages in different colors or with initials, as: F, French; G, German; S, Spanish; L, Latin.



COOPERATIVE TEST DIVISION, Educational Testing Service
Princeton, New Jersey    Los Angeles, Calif.

5M-1050

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**FORM 12.**

be done readily, since the American Council forms and the Educational Records Bureau forms are not copyrighted.

Still other schools may wish to adopt an entirely new approach to their record forms instead of copying parts of any available forms. Even these schools, however, can obtain valuable ideas concerning arrangement of data on the card from a study of forms that have been prepared either by national organizations, such as the American Council on Education, or by committees in local school systems. In recent years, many schools have printed new record forms that are obviously the results of much thought and work but which are so poorly arranged that much more time is required for a counselor to get the essential information from them than is needed when well-organized forms are used.

It is impossible to present in this book more than a few of the many admirable cumulative records which have been devised by school systems throughout the country. The cumulative records of the following school systems will be shown and briefly discussed: Providence, Rhode Island, Public Schools; Junior and Senior High Schools of Los Angeles, California; Junior and Senior High Schools of Philadelphia, Pennsylvania; secondary schools of Newark, New Jersey, and Minneapolis, Minnesota, Public Schools.

As already indicated, the cumulative record is so extensive and so important that it is necessary for purposes of study to consider it apart from the other records of the school. The consideration of the cumulative record without regard to the other school records, however, may confuse our thinking unless a word of warning is issued. It should be remembered that in the case of every cumulative record, the cumulative form is just one important aspect of a whole complex record system. It does not stand alone but is supported by a whole array of supplementary records.

## PROVIDENCE PUBLIC SCHOOLS—AMERICAN COUNCIL CUMULATIVE RECORD CARD, POSTINDEX ADAPTATION

One of the oldest, most firmly established, and most influential guidance programs in the United States was developed in the Providence Public Schools by Dr. Richard D. Allen, Assistant Superintendent of Schools. The program was maintained under Dr. Allen's direction during his lifetime, and it has been carried forward during the past decade under the direction of his successor, Dr. Elmer R. Smith, and with the active interest of Superintendent James I. Hanley. Among the many useful forms provided for the guidance program in Providence is an adaptation of the original American Council cumulative record card. The form, as used in Providence, is printed on both sides of an 8- by 9¾-inch sheet, which is then folded into a 5- by 8-inch size (Form 13).

The categories on the Providence form are much like those on the card originally worked out by the American Council on Education with the exception of several minor changes. The record may be used throughout a period of seven years, instead of six. The graphic test record of educational growth is on a rectangular scale, rather than on a sigma scale. The section for personality rating is quite definite and calls for checking appearance and manner, initiative, leadership, emotional control, industry, coöperation, and reliability on a five-point scale. The "date and causes of leaving" have been added to the form, and there is a brief space for a note concerning college record.

## LOS ANGELES CUMULATIVE RECORD FORMS FOR ELEMENTARY SCHOOLS AND HIGH SCHOOLS

The Los Angeles cumulative record system consists of two forms, an 8½- by 11-inch card for the elementary school and a cumulative folder for the high school. The high school folder, which is printed on three sides, is reproduced as Form 14.

In contrast to the traditional emphasis on subjects and marks, it is noteworthy that the front of the cumulative record card for elementary schools contains space for recording data in connection with such headings as health or significant physical traits, mental health or significant mental traits, free time activities or special achievement, parents' plans for pupil, pupil's plan, and interviews, and that the scholastic record is relegated to the back of the card. The scholastic record occupies only a small amount of space, the greater portion of the back of the card being taken up with scholastic capacity and educational achievement test data and trait and attitude ratings.

In the cumulative record for the junior and senior high schools, the top half of the inside portion has to do with the scholastic record and with educational achievement test and scholastic capacity test data. In view of the fact that this card is expected to serve six years, it would seem that the space for recording the test data is rather limited.

Several of the divisions that are given on the elementary card also appear on the lower page of the inside section. Thus data on mental health or significant mental traits should be available in compact form for the entire school period. An important addition is the section for occupational or special interests. The sections in the lower half of the card are somewhat similar to certain parts of the American Council form, although their arrangement is very different.

One of the most interesting parts of the Los Angeles

| LAST NAME | FIRST NAME | MIDDLE NAME | M-F | BIRTH DATE | BIRTH PLACE | PROOF OF AGE | VACCINATION |
|---|---|---|---|---|---|---|---|

RESIDENCE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE OF ENTRY | | | | | | | |
| FROM SCHOOL | | | | | | | |
| TO SCHOOL | | | | | | | |
| HOME ROOM | | | | | | | |
| YEAR | | | | | | | |
| ATTENDANCE AB. T. | AB. T. | AB. T. | AB. T. | AB. T. | AB. T. | AB. T. | AB. T. |

SUBJECTS, GRADES AND CREDITS

| SUBJECT | SUBJECT | SUBJECT | SUBJECT | SUBJECT | SUBJECT | SUBJECT |
|---|---|---|---|---|---|---|
| UNITS EARNED | UNITS EARNED | UNITS EARNED | UNITS EARNED | UNITS EARNED | UNITS EARNED | UNITS EARNED |
| TEST | TEST | TEST | TEST | TEST | TEST | TEST |

ACADEMIC APTITUDE

SUPPLEMENTARY OBJECTIVE TESTS

GRAPHIC TEST RECORD OF EDUCATIONAL GROWTH

| %ILE | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



**FORM 13 (Front).**

| FATHER (NAME) | MOTHER (NAME) | STEP-PARENT OR GUARDIAN (NAME) |
|---|---|---|
| RESIDENCE | | |
| COUNSELOR | | |
| HOME INFLUENCES AND SOCIAL ADJUSTMENT | | |
| MENTAL AND EMOTIONAL | | |
| PHYSICAL AND ATHLETIC | | |
| EXTRA-CURRICULAR AND FREE-TIME ACTIVITIES AND INTERESTS | | |

*Postindex* PAT. JAN. 13. '20 SEPT. 14. '20 APR. 3. '23 FEB. 8. '27 CITY OF PROVIDENCE, SCHOOL DEPT. 96-C-4571-8

| | | |
|---|---|---|
| NOTABLE ACCOMPLISH-MENTS AND EXPERIENCES | | |
| VOCATIONAL EXPERIENCES AND PLANS | | |
| EDUCATIONAL PLANS | | |

| PERSONALITY RATING | E | D | C | B | A | E | D | C | B | A |
|---|---|---|---|---|---|---|---|---|---|---|
| APPEARANCE AND MANNER | | | | | | | | | | |
| INITIATIVE | | | | | | | | | | |
| LEADERSHIP | | | | | | | | | | |
| EMOTIONAL CONTROL | | | | | | | | | | |
| INDUSTRY | | | | | | | | | | |
| COOPERATION | | | | | | | | | | |
| RELIABILITY | | | | | | | | | | |
| AT TIME OF LEAVING | DATE | | GRADE | | | DATE | | GRADE | | |

DATE AND CAUSES OF LEAVING

| PROMOTION FROM JUNIOR H. S. | GRADUATION FROM SENIOR H. S. | TRANSFERRED TO |
|---|---|---|

OTHER CAUSES OF LEAVING (CODE)

CERTIFIED IN FOLLOWING UNITS

COLLEGE RECORD

REMARKS

| LAST NAME | FIRST NAME | MIDDLE NAME |
|---|---|---|

**FORM 13 (Back).**

## CUMULATIVE RECORD
## JUNIOR AND SENIOR HIGH SCHOOLS
## LOS ANGELES CITY SCHOOLS

LAST NAME ______ FIRST ______ MIDDLE ______

DATE OF BIRTH ______ CHECK IF VERIFIED ______ PLACE OF BIRTH ______

Form 34-H-103 30M 9-36

| School | | | School | | | School | | | Graduation Requirements Semester Hours in Years 10, 11, 12 |
|---|---|---|---|---|---|---|---|---|---|
| Date Entered | Left | | Date Entered | Left | | Date Entered | Left | | |
| Grade | B7 | A7 | Grade | B8 | A8 | Grade | B9 | A9 | English (20) |
| Subject | Mark | Mark | Subject | Mark | Mark | Subject | Mark | Mark | Major (30) |
| Physical Education | | | Physical Education | | | Physical Education | | | Social Studies 11th Yr. (10) |
| | | | | | | | | | Laboratory Science (10) |
| | | | | | | | | | Physical Education (30) |
| | | | | | | | | | Art or Art Appreciation (5) |
| | | | | | | | | | Practical Arts (5) |
| | | | | | | | | | Music or Music Appreciation (5) |
| | | | | | | | | | 150 Semester Hours |
| | | | | | | | | | 60 Semester Hours 11th & 12th Grades |

| School | | | | | School | | | | | School | | | | | School | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date Entered | Left | | | | Date Entered | Left | | | | Date Entered | Left | | | | Date Entered | Left | | | |
| Grade | B10 | | A10 | | Grade | B11 | | A11 | | Grade | B12 | | A12 | | Grade | | | | |
| Subject | Mark | Sem. Hr. | Mark | Sem. Hr. | Subject | Mark | Sem. Hr. | Mark | Sem. Hr. | Subject | Mark | Sem. Hr. | Mark | Sem. Hr. | Subject | Mark | Sem. Hr. | Mark | Sem Hr. |
| Physical Education | | | | | Physical Education | | | | | Physical Education | | | | | Physical Education | | | | |
| Total Semester Hours | | | | | Total Semester Hours | | | | | Total Semester Hours | | | | | Total Semester Hours | | | | |

| Educational Achievement Test Data | | | | | | Educational Achievement Test Data | | | | | | Scholastic Capacity Test Data | | | | | | Graduation | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | School | Test | Score | Prcn-tile | Gr. Pl. | Date | School | Test | Score | Prcn-tile | Gr. Pl. | Date | School | Test | Score | M. A. | Index | Semester Hours | |
| | | | | | | | | | | | | | | | | | | 10th Year | |
| | | | | | | | | | | | | | | | | | | 11th Year | |
| | | | | | | | | | | | | | | | | | | 12th Year | |
| | | | | | | | | | | | | | | | | | | Total | |

FORM 14(a).

Fold up on this line

| Name | Home Conditions: Natural | Step. | Separated | Dead | Date | Home Address | Phone |
|---|---|---|---|---|---|---|---|
| Father | | | | | | | |
| Mother | | | | | | | |

| Date | Test | Results |
|---|---|---|

Personality or Special Interest Tests

| Date | Father's Occupation | Mother's Occupation |
|---|---|---|

| Date | Parent's Plan for Pupil's Training |
|---|---|

| Date | Significant Home Conditions |
|---|---|

| Date | Course | Occupational or Special Interests |
|---|---|---|

| Date | Pupil's Plan for Future Training |
|---|---|

| Date | Health or Significant Physical Traits |
|---|---|

| Date | School's Recommendation |
|---|---|

| Date | Mental Health or Significant Mental Traits |
|---|---|

Significant Individual Interviews

| Date | With Whom | Subject or Comments |
|---|---|---|

| Date | Follow Up |
|---|---|

| Date | Special Achievements or Free-time Activities |
|---|---|

**FORM 14(b).**

| | Semesters | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date | | | | | | | | | | | | | |
| Responsibility<br>Dependability | Responsible and Resourceful | I | | | | | | | | | | | | |
| | Conscientious | II | | | | | | | | | | | | |
| | Generally Dependable | III-A | | | | | | | | | | | | |
| | Selectively Dependable | III-B | | | | | | | | | | | | |
| | Unreliable | IV | | | | | | | | | | | | |
| | Irresponsible | V | | | | | | | | | | | | |
| Inquiring Mind | General | I | | | | | | | | | | | | |
| | Specific | II | | | | | | | | | | | | |
| | Limited | III | | | | | | | | | | | | |
| | Directed | IV | | | | | | | | | | | | |
| | Unresponsive | V | | | | | | | | | | | | |
| Social Concern | Generally Concerned | I | | | | | | | | | | | | |
| | Selectively Concerned | II | | | | | | | | | | | | |
| | Personal | III | | | | | | | | | | | | |
| | Inactive | IV | | | | | | | | | | | | |
| | Unconcerned | V | | | | | | | | | | | | |
| Work Habits | Generally Thorough | I | | | | | | | | | | | | |
| | Selectively Thorough | II | | | | | | | | | | | | |
| | Irregular | III | | | | | | | | | | | | |
| | Superficial | IV | | | | | | | | | | | | |
| | Slipshod | V | | | | | | | | | | | | |
| Creativeness<br>Imagination | General | I-A | | | | | | | | | | | | |
| | Specific | I-B | | | | | | | | | | | | |
| | Promising | II | | | | | | | | | | | | |
| | Limited | III | | | | | | | | | | | | |
| | Imitative | IV | | | | | | | | | | | | |
| | Unimaginative | V | | | | | | | | | | | | |
| Influence | Controlling | I | | | | | | | | | | | | |
| | Contributing | II | | | | | | | | | | | | |
| | Varying | III | | | | | | | | | | | | |
| | Cooperating | IV | | | | | | | | | | | | |
| | Passive | V | | | | | | | | | | | | |
| Open Mindedness | Discriminating | I | | | | | | | | | | | | |
| | Tolerant | II | | | | | | | | | | | | |
| | Passive | III | | | | | | | | | | | | |
| | Rigid | IV | | | | | | | | | | | | |
| | Intolerant | V | | | | | | | | | | | | |
| Power and Habit of Analysis | Highly Analytical | I | | | | | | | | | | | | |
| | Incomplete | II-A | | | | | | | | | | | | |
| | Irregular | II-B | | | | | | | | | | | | |
| | Undeveloped | III-A | | | | | | | | | | | | |
| | Limited | III-B | | | | | | | | | | | | |
| | Passive | IV | | | | | | | | | | | | |
| | Unreasoning | V | | | | | | | | | | | | |
| Emotional Responsiveness | To Ideas | I | | | | | | | | | | | | |
| | To Difficulty | II | | | | | | | | | | | | |
| | To Ideals | III | | | | | | | | | | | | |
| | To Beauty | IV | | | | | | | | | | | | |
| | To Order | V | | | | | | | | | | | | |
| Study Skills | Budgets Time | I | | | | | | | | | | | | |
| | Selects Environment | II | | | | | | | | | | | | |
| | Persistent | III | | | | | | | | | | | | |
| | Utilizes Aids | IV | | | | | | | | | | | | |
| | Methodical | V | | | | | | | | | | | | |

**FORM 14(c).**

cumulative folder is its back page. This section is an adaptation of the behavior description form which was set up in connection with the Eight-Year Study of the Progressive Education Association. Although the behavior description form is being used extensively and has been incorporated into the American Council folder, the Los Angeles school system seems to have been the first school system to take over the form and actually to print it as a part of their own cumulative record system. A similar section appears in a cumulative record form for use in junior and senior high schools of the United States Indian Service.

## PHILADELPHIA CUMULATIVE RECORD FORMS FOR ELEMENTARY SCHOOLS AND HIGH SCHOOLS

The Philadelphia cumulative record system has been carefully worked out over a period of years and has gone through a number of revisions. It consists of two forms, a 5⅝ by 8-inch card for the elementary school and a compact, visible-file, cumulative folder for the high school. The two forms are so arranged that they can be adjusted for convenient use in studying the progress of the pupil over the elementary–high school period. The test portion of the elementary school record is so designed that it will furnish a graphic growth record of the pupil. Directions for use of the elementary school cumulative record are carefully set forth in a small manual.

The high school form is printed on the front and back of an 8 by 11⅝-inch manila sheet which is folded to fit a 6¼ by 8-inch file. This record is reproduced as Form 15.

The front of the form is devoted to a record of subjects, marks, and credits, and an attendance record in junior and senior high school. The top half of the back of the form provides for information about the family, the schools previously attended, the results of tests, and health and medical data. The lower half allows for entry of additional items significant for guidance, including interests and activities in and out of school. It also has space for educational and vocational plans and the pupil's graduation record.

It will be noted that in the test portion of the record having to do with the junior high school grades the names of a number of tests have been printed on the form. Some of these, such as reading, spelling, arithmetic fundamentals, arithmetic problems, and English usage, are general enough to allow for the use of any one of several different tests. This is desirable, since it keeps the testing program flexible and allows for the introduction of new tests into the program.

In the column for Grade 9, the printed words for the measures of interests, mechanical, computational, scientific, and so forth, clearly refer to the Kuder Preference Record. This arrangement may create some difficulty if the school wishes to change to another interest inventory before the form is revised. In general, in the construction of cumulative records, it is preferable not to print anything on the form that will seem to tie the school to a specific evaluative device, particularly during this period of rapid development in new measurement instruments.

There was formerly a manual of instructions for the secondary school cumulative record used in Philadelphia, but the manual has been discontinued with the present edition, and an attempt has been made to incorporate all essential directions on the form itself.

The Philadelphia record folder for junior and senior high schools is an example of a cumulative record that contains essential information for both academic and guidance purposes and that can be maintained without an excessive amount of clerical work.

## NEWARK, NEW JERSEY, CUMULATIVE RECORD FOR SECONDARY SCHOOLS

The cumulative record for the secondary schools of Newark, which was also carefully worked out during a period of several years, illustrates a kind of form which is more definitely oriented toward guidance than the records of many other school systems. The front and back of the basic form, 12 by 17½ inches, which folds to fit a file 9 by 12 inches, are devoted entirely to guidance information. There is a separate card for the record of academic achievement which may be used as an insert for the folder. The entire cumulative record is shown in Forms 16A and 16B.

The front of the folder covers the following areas: family data, personal data, conferences with parents or agencies concerned with the individual pupil, attendance, health data, social and recreational experiences, work experiences, interests and hobbies, educational and vocational goals, and a behavior description which bears some resemblance to the behavior description developed by the Progressive Education Association.

The back of the folder provides for a detailed test record and for extensive interpretative and follow-up comments on the test findings by the counselor. If this portion of the record is actually used, it should prove to be one of the most valuable parts.

A well-planned, detailed, mimeographed manual of instruction is available for use with the cumulative record. The introductory statement by Mrs. Alice S. Ruotolo, chairman of the committee which prepared the manual, is worth reproducing in full:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | LAST NAME* | FIRST NAME | MIDDLE NAME | BOY | GIRL | 11 FIRST ATTENDANCE AT ANY SCHOOL IN GRADE 1A (NOT KINDERGARTEN) | MONTH | DAY | YEAR |
| | | | | 3 IND. BY X | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | TERM ENDED ➔ | J | 19 | J | 19 | J | 19 | J | 19 | J | 19 | J | 19 | J | 19 | 35 |
| 13 | GRADE AND GROUP No. | 7A | | | | | | | | | | | | | | PERIODS PER WEEK NINTH GRADE |
| 14 | ADVISER'S NAME | | | | | | | | | | | | | | | |
| | SUBJECT FIELD | † | MARK | † | MARK | † | MARK | † | MARK | † | MARK | † | MARK | † | MARK | |
| 15 | ART | | | | | | | | | | | | | | | |
| 16 | CLOTHING INSTRUCT. | | | | | | | | | | | | | | | |
| 17 | DRAWING—MECH. | | | | | | | | | | | | | | | |
| 18 | ENGLISH | | | | | | | | | | | | | | | |
| 19 | FOODS INSTRUCTION | | | | | | | | | | | | | | | |
| 20 | FOREIGN LANGUAGE† (SPECIFY) | | | | | | | | | | | | | | | |
| 21 | HEALTH EDUCATION | | | | | | | | | | | | | | | |
| 22 | JUNIOR BUS. TRAIN. | | | | | | | | | | | | | | | |
| 23 | MATHEMATICS† (SPECIFY) | | | | | | | | | | | | | | | |
| 24 | MUSIC | | | | | | | | | | | | | | | |
| 25 | PHYSICAL EDUCATION | | | | | | | | | | | | | | | |
| 26 | SCIENCE | | | | | | | | | | | | | | | |
| 27 | SHOP (SPECIFY)† | | | | | | | | | | | | | | | |
| 28 | SHOP (SPECIFY)† | | | | | | | | | | | | | | | |
| 29 | SOCIAL STUDIES† (SPECIFY) | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | |
| 34 | COOPERATION | | | | | | | | | | | | | | | |
| 36 | DAYS PRESENT | | TOTAL UNEXC. ABSENCE | | TOTAL UNEXC. ABSENCE | | TOTAL UNEXC. ABSENCE | | TOTAL UNEXC. ABSENCE | | TOTAL UNEXC. ABSENCE | | TOTAL UNEXC. ABSENCE | | TOTAL UNEXC. ABSENCE | |
| 37 | DAYS ABSENT | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | |
| 39 | TIMES LATE | | | | | | | | | | | | | | | |

40 † INSERT SUBJECT INITIAL WHEN NECESSARY, AND GRADE OF SUBJECT WHEN DIFFERENT FROM GRADE OF PUPIL, E.G., FOR ALGEBRA 1, WRITE A1: FOR LATIN 2, WRITE L2. MAKE SUMMER SCHOOL ENTRY IN JANUARY TERM. CIRCLE TERM, MARK, AND UNITS, LEAVING SPACE BELOW IN CASE FURTHER WORK IS DONE DURING TERM.

FOLD HERE

CURRICULUM

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41 | TERM ENDED ➔ | J | 19 | | J | 19 | | J | 19 | | J | 19 | | J | 19 | | J | 19 | | 61 |
| 42 | GRADE AND GROUP No. | 10A | | | | | | | | | | | | | | | | | | TOTAL UNITS ENTER AT GRADUATION |
| 43 | ADVISER'S NAME | | | | | | | | | | | | | | | | | | | |
| | SUBJECT FIELD | § | MK.¶ | UNITS | § | MK.¶ | UNITS | § | MK.¶ | UNITS | § | MK.¶ | UNITS | § | MK.¶ | UNITS | § | MK.¶ | UNITS | |
| 44 | ENGLISH | | | | | | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | | | | | | | |
| 46 | HEALTH EDUCATION | | | | | | | | | | | | | | | | | | | |
| 47 | PHYSICAL EDUCATION | | | | | | | | | | | | | | | | | | | |
| 48 | COMMERCE HOME ECON. IND. & VOC. ARTS MECH. ARTS, MUSIC (4 OR MORE PERIODS PER WEEK) | | | | | | | | | | | | | | | | | | | |
| 49 | FOREIGN LANGUAGE | | | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | | | | |
| 51 | MATHEMATICS | | | | | | | | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | | | | | | | | | |
| 53 | SCIENCE | | | | | | | | | | | | | | | | | | | |
| 54 | | | | | | | | | | | | | | | | | | | | |
| 55 | SOCIAL STUDIES | | | | | | | | | | | | | | | | | | | |
| 56 | | | | | | | | | | | | | | | | | | | | |
| 57 | MINOR SUBJECTS | | | | | | | | | | | | | | | | | | | |
| 58 | | | | | | | | | | | | | | | | | | | | |
| 59 | | | | | | | | | | | | | | | | | | | | |
| 61 | TOTAL UNITS | ‡ | / | | ‡ | / | | ‡ | / | | ‡ | / | | ‡ | / | | ‡ | / | | |
| 62 | DAYS PRESENT | | TOTAL UNEXC. ABSENCE | | | TOTAL UNEXC. ABSENCE | | | TOTAL UNEXC. ABSENCE | | | TOTAL UNEXC. ABSENCE | | | TOTAL UNEXC. ABSENCE | | | TOTAL UNEXC. ABSENCE | | |
| 63 | DAYS ABSENT | | | | | | | | | | | | | | | | | | | |
| 64 | | | | | | | | | | | | | | | | | | | | |
| 65 | TIMES LATE | | | | | | | | | | | | | | | | | | | |

¶ ENTER ALL PASSING OR FAILING MARKS

‡ CUMULATIVE UNITS BEGINNING OF TERM

§ INSERT INITIAL LETTER AND/OR TERM OF SUBJECT

FORM HV 1—CUMULATIVE RECORD—SCHOOL DISTRICT OF PHILADELPHIA (APRIL 1954)

**FORM 15 (Front).**

| | *DATE OF BIRTH† | | | 4 COUNTRY OF BIRTH | | PARENTS' FIRST NAMES (FULL NAME IF DIFFERENT FROM CHILD'S NAME) | CHK. IF DEC. |
|---|---|---|---|---|---|---|---|
| | MONTH | DAY | YEAR | | | | |
| 2 | | | | | 6 | F | |
| | | | | | 7 | M | |

8 GUARDIAN'S FULL NAME*

* ORIGINAL ENTRIES — ITEMS 1, 2, 3, 4, 6, 7, 8, 10, AND 79.

TYPE ITEMS 1, 2, 10, AND 79.

FOR PUPILS PROMOTED FROM GRADE 6B, ITEMS 1, 2, 10, AND 79 MAY BE COPIED IN ADVANCE FROM "ASSIGNMENTS TO OTHER SCHOOLS", FORM EH 52. ITEMS 3, 4, 6, 7, AND 8 MAY BE COPIED FROM THE REGISTRATION CARD.

10 SCHOOLS ATTENDED — GRADES 7-12*

| DATE | * * | RESIDENCE OF PUPIL | SCHOOL ATTENDED |
|---|---|---|---|
| / / | | | |
| / / | | | |
| / / | | | |
| / / | | | |
| / / | | | |
| / / | | | |
| / / | | | |

LIST ALL SCHOOLS, INCLUDING ALL PHILADELPHIA PUBLIC SCHOOLS, OTHER PUBLIC SCHOOLS, PRIVATE SCHOOLS, AND INSTITUTIONS. ENTER ALL CHANGES IN RESIDENCE.

* *ENTER CODE EXPLANATION FOR ADMISSION AND DISMISSAL: W—WITHIN SCHOOL (6B TO 7A); T—TRANSFERRED; R—READMITTED; G—GRADUATED; O—(1-10) OTHER CAUSES; E. G., O-2—MOVED FROM DISTRICT.

66 GRADES 7, 8, 9 — GRADES 10, 11, 12

67 STANDARD TESTS OF APTITUDES INTERESTS AND ABILITIES INCLUDING MENTAL ABILITY

| RELATIVE SCORE | CENTILE |
|---|---|
| 5+ | 98-100 |
| 5— | 93-97 |
| 4+ | 84-92 |
| 4— | 69-83 |
| 3+ | 50-68 |
| 3— | 31-49 |
| 2+ | 16-30 |
| 2— | 7-15 |
| 1 | 0-6 |

| NAME OF TEST | REL. SCORE | NAME OF TEST | REL. SCORE | NAME OF TEST | REL. SCORE | NAME OF TEST | REL. SCORE | NAME OF TEST | REL. SCORE | NAME OF TEST | REL. SCORE | NAME OF TEST | REL. SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A Arith. Fund. | | 8A Arith. Fund. | | 9A Verbal (IQ) | | | | | | | | | |
| 7A Reading | | 8A Reading | | | | | | | | | | | |
| 7B Spelling | | 8B Spelling | | | | | | | | | | | |
| 7B Arith. Probs. | | 8B Eng. Usage | | | | | | | | | | | |
| | | Punct. | | Mechanical | | | | | | | | | |
| | | Usage | | INTERESTS: Computation | | | | | | | | | |
| | | | | Scientific | | | | | | | | | |
| | | | | Persuasive | | | | | | | | | |
| | | | | Artistic | | | | | | | | | |
| | | | | Literary | | | | | | | | | |
| | | | | Musical | | | | | | | | | |
| | | | | Social Ser. | | | | | | | | | |
| | | | | Clerical | | | | | | | | | |

71 HEALTH AND MEDICAL RECORD★ (CONSULT MEHV 3) INDICATE DEFECT BY X IN CHECK COLUMN OPPOSITE DATE

| | DATE | CHECK | DATE | CHECK | DATE | CHECK | OTHER SIGNIFICANT HEALTH ITEMS |
|---|---|---|---|---|---|---|---|
| IMPAIRED VISION | | | | | | | |
| IMPAIRED HEARING | | | | | | | |
| HEART DISEASE | | | | | | | |
| OTHER (SPECIFY) | | | | | | | |

† DATE OF BIRTH MUST AGREE WITH DATE ON REGISTRATION CARD. DATE, SIGN, AND EXPLAIN CORRECTIONS MADE:

★ ENTER DEFECTS NOT YET REPORTED AS TREATED, AND DEFECTS NOT IMMEDIATELY APPARENT THAT REQUIRE SPECIAL HANDLING.

69 COUNSELING RECORD: FIRST DATE__________19____ 70 INDIVIDUAL PSYCHOLOGICAL REPORT MADE__________19____

66 GRADES 7, 8, 9 — GRADES 10, 11, 12

72 ADDITIONAL ITEMS SIGNIFICANT FOR GUIDANCE

ENTER INTERESTS AND ACTIVITIES IN AND OUT OF SCHOOL (GIVE DATE AND TEACHER'S INITIALS FOR EACH ENTRY)

GRADUATION RECORD

74 TOTAL NO. IN CLASS RECEIVING DIPLOMAS__________RANK__________

75 SCHOLASTIC AVERAGE (NUMERICAL)__________

76 KIND OF DIPLOMA__________

77 TRANSCRIPT OF CREDITS SENT TO:__________

73 EDUCATIONAL AND VOCATIONAL PLANS

79 LAST NAME* | FIRST NAME | MIDDLE NAME

**FORM 15 (Back).**

A cumulative record serves as a complete and up-to-date picture of each pupil as he progresses through our schools. It reflects all phases of his development—physical, mental, social, vocational, etc. It furnishes scientific data for guidance purposes to teachers, counselors, and all others interested in his adjustment to life both in school and out of school. Through their expert observation and notations, recorded comments, recommendations, and follow-up, counselors build up a veritable case study in outline form. When confidential material is added by means of inserts, the record brings into clear focus an intimate three-dimensional portrait of the pupil's whole personality in his school, home, and community—his total environment.

However, the real value of any record is measured by the extent to which it is analyzed and utilized. Recommendations noted, but never acted upon, are mere gestures hardly worth the time and effort of recording. Records filed neatly in cabinets are time-wasting irritations unless they represent vital problems which are in the process of solution. Easy accessibility and frequent use will make these records important to the pupil, his teachers, parents, social workers, and others who may be called upon to assist the pupil to achieve a happy life adjustment. Figures have shown that approximately sixty per cent of American youth are not trained for life adjustment. Therefore, teachers and counselors have a moral obligation to do whatever is possible to rectify this situation.

The record is a guidance tool and should contain all pertinent information necessary for effective guidance, and only that. In addition to use in school guidance, records are often requested by army and navy officials, courts, and the Bureau of Missing Persons. Every necessary identification should therefore be accurately and fully recorded.

The dignity and self-respect of each pupil should be maintained at all costs. Nothing detrimental to his success in life should be recorded in permanent form. From time to time, he may be shown his record, including the confidential material placed in the folder as inserts to be destroyed when their usefulness has been outlived.

## MINNEAPOLIS PUBLIC SCHOOLS CUMULATIVE RECORD CARDS

Two cumulative record forms of the Minneapolis Public Schools represent an especially carefully organized system. These cards, which provide for a continuous record from Grades 1 through 12, are reproduced in Forms 17A and 17B. In addition, there is an unusually thorough health record form which is shown as Form 17C. All three forms are filed in a special folder for the cumulative records which serves as a means of centralizing the records. Additional materials, such as profile charts, special test data, anecdotal records, autobiographies, teacher comments, rating sheets, and samples of work, may be filed in the same folder.

The front of the first card has spaces for the family record and for an informal cumulative record for the kindergarten and Grade 1. The back of the card is devoted to the pupil's record in Grades 2 through 6. It includes attendance, progress in school subjects, personality evaluation, and scores on school ability and educational tests. The entries are arranged in annual columns except for the test record.

The front of the second card is concerned mainly with the pupil's scholastic record and test record in Grades 7 through 12. Provision is also made for entries pertinent to work experience, interests and hobbies, educational plans, and vocational plans. The back of this card provides for a record of activity experiences, staff evaluations of behavior traits, and follow-up information. The behavior record bears some similarity to the behavior description form developed in the Eight-Year Study of the Progressive Education Association, although it is evidently not based directly on that form.

The health record form covers special health problems, medical history, health classification of the pupil for school activities and athletics, vision, hearing, physical examinations, dental health status, speech and reading disabilities, psychological findings, and a growth record, and also allows considerable space for notes. In the extent of coverage and detail of information provided for, this health record is unsurpassed among the school cumulative record forms the writer has seen.

The present Minneapolis cumulative record system is a revision of a good set of cumulative record cards formerly used in that system.

## A SUGGESTED SIMPLIFIED CUMULATIVE RECORD

The cumulative record forms that have been discussed in this chapter make provision for a rather extensive recording procedure annually for each pupil. The very wealth of information provided on such records may cause some schools which have not yet undertaken procedures of this kind to hesitate to adopt them because of the amount of clerical service that seems to be required to keep the records up to date. Such schools may wish to begin their cumulative records on a somewhat less ambitious basis. A record form (Form 18) is therefore suggested as an intermediate step between the older type of permanent record form and the modern and extensive cumulative record such as the series issued by the American Council on Education or the kind illustrated by the records of several public school systems as shown in this chapter.

This form is similar in many respects to the Educa-

# CUMULATIVE RECORD
SECONDARY SCHOOLS, NEWARK, N. J.

PUPIL'S LAST NAME — FIRST — MIDDLE — M F SEX — – –19 DATE & PLACE OF BIRTH

| FAMILY DATA | OCCUPATION | EDUCATION | LANGUAGE SPOKEN | PLACE OF BIRTH | ADDRESS | TELEPHONE |
|---|---|---|---|---|---|---|
| FATHER | | | | | | |
| MOTHER | | | | | | |
| STEP-PARENT | | | | | | |

SIBLINGS: NUMBER OLDER / NUMBER YOUNGER / DATE OF RECORDING

SIGNIFICANT HOME CONDITIONS: PARENTAL, COMMUNITY, HEALTH, SOCIAL.

SEE INSERT NO. ☐ ☐ ☐ ☐

## PERSONAL DATA

PHOTOGRAPH (DATED) OR DESCRIPTION

HAIR | PHYSIQUE

EYES

COLOR

HEIGHT

WEIGHT

PREVIOUS SCHOOL RECORD: SCHOOLS ATTENDED, ACTIVITIES, HONORS, TEST SUMMARY.

SEE INSERT ELEMENTARY SCHOOL CUMULATIVE RECORD

## CONFERENCES

WITH PARENTS; RELIGIOUS, SOCIAL OR WELFARE AGENCIES; CLINICS; BUREAU OF CHILD GUIDANCE; BUREAU OF ATTENDANCE; OTHERS.

| | SIGNATURES, DATE | | SIGNATURES, DATE |
|---|---|---|---|
| | | | |

SEE INSERT NO. ☐ ☐ ☐ ☐

| | JUNIOR HIGH SCHOOL | | | | | | SENIOR HIGH SCHOOL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCHOOL | | | | | | | | | | | | | PATTERN OF STUDIES |
| COUNSELOR | | | | | | | | | | | | | |
| YEAR & GRADE | 7B 19 | 7A 19 | 8B 19 | 8A 19 | 9B 19 | 9A 19 | 10B 19 | 10A 19 | 11B 19 | 11A 19 | 12B 19 | 12A 19 | |
| AGE (AS OF SEPT. 1) | | | | | | | | | | | | | |
| DAYS ABSENT | | | | | | | | | | | | | H. S. CREDITS |
| TIMES TARDY | | | | | | | | | | | | | COLLEGE UNITS |

HEALTH DATA: GENERAL HEALTH, VISUAL AND HEARING ACUITY, CARDIAC CONDITION, RESULT OF TUBERCULIN TEST, LUNG X-RAY, EXCLUSION FROM GYM.

PHYSICAL

MENTAL — GENERAL STABILITY, EVIDENCE OF EMOTIONAL INSECURITY, E.G. MOODINESS, AGGRESSIVENESS, SPEECH DIFFICULTIES.

SEE INSERT NO. ☐ ☐ ☐ ☐

FORM 16A (Front).

| EXPERIENCES: | EVIDENCE OF SIGNIFICANT ACTIVITIES, PLANNED PROGRAM FOR LEISURE TIME | | | | | | RECOMMENDATIONS |
|---|---|---|---|---|---|---|---|
| SOCIAL & RECREATIONAL<br>IN SCHOOL<br>OUT OF SCHOOL<br>CAMP-TRAVEL | | | | | | | |
| WORK<br>CHORES<br>EMPLOYMENT<br>TYPE & WAGES | | | | | | | |
| INTERESTS & HOBBIES | | | | | | | |
| BEHAVIOR DESCRIPTION: INDUSTRY, WORK HABITS | | | | | | | SUMMARY<br>PERSONALITY INTEGRATION |
| SOCIAL ADJUSTMENT | | | | | | | |
| INITIATIVE | | | | | | | |
| COOPERATIVENESS | | | | | | | |
| LEADERSHIP | | | | | | | |
| DEPENDABILITY | | | | | | | |
| EMOTIONAL STABILITY | | | | | | | |
| ATTITUDE TOWARD AUTHORITY | | | | | | | |
| SENSE OF HUMOR | | | | | | | GRAD. RANK / NO IN CLASS |
| ED. & VOC. GOALS | | | | | | | |

FOLLOW-UP REPORT

TRANSFER TO ______ SCHOOL ______ GRADE ______ DATE ______

REASON FOR DROPOUT ______ DATE ______

FORM 164

FORM 16A (Front), *Continued.*

# CUMULATIVE RECORD

DEPARTMENT OF GUIDANCE
SECONDARY SCHOOLS
BOARD OF EDUCATION
NEWARK 2, N. J.

FORM 16A (Back).

# TEST RECORD

| | JUNIOR HIGH SCHOOL | | | | | | | SENIOR HIGH SCHOOL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE TEST | SCH. GR. | DATE | NAME OF TEST | CA | MA | IQ | % ILE | SCH. GR. | DATE | NAME OF TEST | CA | MA | IQ | % ILE |
| INTELLIGENCE TEST | | | | | | | | | | | | | | |
| ACHIEVEMENT TEST | | | | | SUBJ. GR. | SUBJ. AGE | % ILE | | | SUBJ. GR. | SCORE | PERCENTILE POSITION | | |
| READING | | | | | | | | | | | | SCHOOL | CITY | OTHER |
| ARITHMETIC | | | | | | | | | | | | | | |
| ADDITIONAL TESTS | | | | | | | | | | | | | | |

## COUNSELOR'S INTERPRETATION AND FOLLOW-UP OF TEST FINDINGS

INTERPRETATION OF TEST RESULTS IN LIGHT OF MENTAL ABILITY, PUPIL PERSONALITY, BACKGROUND AND HEALTH

**FORM 16A (Back), *Continued.***

# ACADEMIC ACHIEVEMENT

SECONDARY SCHOOLS, NEWARK, N. J.

LAST NAME FIRST

| 7B 19 | 7A 19 | 8B 19 | 8A 19 | 9B 19 | 9A 19 | | 10B 19 | 10A 19 | 11B 19 | 11A 19 | 12B 19 | 12A 19 | PATTERN OF STUDIES | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ADDRESS | | | | | | | | |
| | | | | | | SCHOOL ATTENDED | | | | | | | | |
| | | | | | | YEAR & GRADE | | | | | | | | |
| | | | | | | DAYS ABSENT | | | | | | | | |
| | | | | | | TIMES TARDY | | | | | | | H.S. CREDITS | COLLEGE UNITS |
| | | | | | | ENGLISH | | | | | | | | |
| | | | | | | LANG. | | | | | | | | |
| | | | | | | MATH. | | | | | | | | |
| | | | | | | SOCIAL STUDIES: OCCUPATIONS | | | | | | | | |
| | | | | | | SOCIAL STUDIES: U.S. HISTORY | | | | | | | | |
| | | | | | | SCIENCE | | | | | | | | |
| | | | | | | MUSIC OR ART | | | | | | | | |
| | | | | | | TECHNICAL, BUSINESS, OTHER | | | | | | | | |
| | | | | | | PHYSICAL EDUCATION | | | | | | | | |
| | | | | | | HEALTH | | | | | | | | |
| | | | | | | HIGH SCHOOL CREDITS | | | | | | | TOTAL | |

TRANSFERRED TO — SCHOOL — GRADE — DATE

GRADUATED FROM — HIGH SCHOOL — RANK — NUMBER IN CLASS — DATE

REASON FOR DROPOUT — DATE

ED. & VOC. PLANS — IMMEDIATE — LONG RANGE

FORM 16B.

Name (Last—First—Middle) Birth Date Sex Birth Place

Father Birth Place Mother Birth Place

School Grade Last School Attended (If from another System) City and State Guardian

**Family Record** (To be entered by teacher every two years). Put first entry in first column and each subsequent entry in the next column.

| | | | | | | |
|---|---|---|---|---|---|---|
| Date | | | | | | |
| Occupation of Father | | | | | | |
| Occupation of Mother | | | | | | |
| Number of Children in family | | | | | | |
| Position of Child | | | | | | |
| Number of Children in Home | | | | | | |
| Family Information such as, normal, divorced, separated, or other pertinent data | | | | | | |
| Teacher's Signature | | | | | | |

**Addresses—Withdrawals—Readmissions**

| Date | Address or Reasons for Withdrawal | School |
|---|---|---|
| | | |

See separate card for **Health Record** (special services as medical, dental, social)

**KINDERGARTEN**

Year

Schools

Room | Days Present | Days Absent

(Kindergarten teacher may use this space for Personality & Conference Report)

Teacher's signature

For Additional Information see

**GRADE ONE**

Year

Schools

Room | Days Present | Days Absent

| Subject | Mark |
|---|---|
| Language | |
| Reading | |
| Social Studies | |

Personality and Conference Report

Teacher's Signature

For Additional Information see

CUMULATIVE RECORD
12A - REV. (10M 8-55) VOCATIONAL PRINT SHOP

MINNEAPOLIS PUBLIC SCHOOLS
COUNSELING

Used with permission of the Minneapolis Public Schools.

FORM 17A (Front).

Name (Last—First—Middle) Birth Date

# ELEMENTARY SCHOOL RECORD

Grades 2-6

| Year | | | | | | |
|---|---|---|---|---|---|---|
| Grade & Room | Grade Room | Grade Room | Grade Room | Grade Room | Grade Room | Grade Room |
| School | | | | | | |
| Attendance | Days Pres. Days Abs. | Days Pres. Days Abs. | Days Pres. Days Abs. | Days Pres. Days Abs. | Days Pres. Days Abs. | Days Pres. Days Abs. |
| Marks In School Subjects | Subject / Marks | Subject / Marks | Subject / Marks | Subject / Marks | Subject / Marks | Subject / Marks |
| | Social Studies | Social Studies | Social Studies | Social Studies | Social Studies | Social Studies |
| | Reading | Reading | Reading | Reading | Reading | Reading |
| | Language | Language | Language | Language | Language | Language |
| | Arithmetic | Arithmetic | Arithmetic | Arithmetic | Arithmetic | Arithmetic |
| Special Instruction Provided In | | | | | | |
| Needs Special Subject Help In | | | | | | |
| Personality Evaluation | | | | | | |
| Teachers Signature | | | | | | |
| For Additional Information See | | | | | | |

| School Ability Tests | Date | Grade | Test | C. A. | M. A. | I. Q. | %ile | Date | Grade | Test | C. A. | M. A. | I. Q. | %ile | Date | Grade | Test | C. A. | M. A. | I. Q. | %ile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | |

| Educational Tests | Date | Grade | Test | Norm. Group | Gr. Lev. | %ile | Date | Grade | Test | Norm. Group | Gr. Lev. | %ile | Date | Grade | Test | Norm. Group | Gr. Lev. | %ile |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | |

128

FORM 17A (Back).

NAME (LAST—FIRST—MIDDLE) BIRTH DATE

# SECONDARY SCHOOL SCHOLASTIC RECORD
## Grades 7-12

Space for Senior Photo

**GRADE 7** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark |
|---|---|
| English | |
| Social Studies | |
| Mathematics | |
| | |
| | |
| | |
| Phy. Ed. | |

Adviser

**GRADE 8** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark |
|---|---|
| English | |
| Social Studies | |
| Mathematics | |
| | |
| | |
| | |
| Phy. Ed. | |

Adviser

**GRADE 9** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark |
|---|---|
| English | |
| Social Studies | |
| | |
| | |
| | |
| | |
| Phy. Ed. & Health | |

Adviser

**GRADE 10** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark Sem. 1 | Mark Sem. 2 | Cr. |
|---|---|---|---|
| English | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Phy. Ed. | | | |

Adviser

**GRADE 11** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark Sem. 1 | Mark Sem. 2 | Cr. |
|---|---|---|---|
| English | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Phy. Ed. & Health | | | |

Adviser

**GRADE 12** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark Sem. 1 | Mark Sem. 2 | Cr. |
|---|---|---|---|
| English | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Phy. Ed. | | | |

Adviser

**GRADE** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark |
|---|---|
| English | |
| Social Studies | |
| | |
| | |
| | |
| | |
| | |

Adviser

**GRADE** Year
School Room
Room

| Days Pres. | Days Abs. | Times Tardy |
|---|---|---|

| Subject | Mark |
|---|---|
| | |
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| | |

Adviser

**FINAL RECORD**

Date of Grad._____ Average_____ No. in Class_____ Rank_____

High School_____ %ile ACE_____ %ile Coop. Eng._____ %ile

## TEST RECORD

**School Ability Tests**

| Date | Grade | Name of Test | C.A. | I.Q. | %ile |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

**Educational Tests**

| Date | Grade | Name of Test | Norm Group | Gr. Lv. | %ile |
|---|---|---|---|---|---|
| | | | | | |
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| Date | Work Experience | Date | Interests and Hobbies | Date | Educational Plans | Date | Vocational Plans |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
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CUMULATIVE RECORD
12C (8M 8-55) Vocational School Print Shop

MINNEAPOLIS PUBLIC SCHOOLS
COUNSELING

**FORM 17B (Front).**

**NAME (LAST—FIRST—MIDDLE)** **BIRTH DATE** 

## SECONDARY SCHOOL RECORD

### ACTIVITY EXPERIENCES

Place a check mark under appropriate grade level

| Activity | 7 | 8 | 9 | 10 | 11 | 12 | Activity | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Student Council | | | | | | | School paper | | | | | | |
| Class Officer | | | | | | | Annual | | | | | | |
| Home Room Officer | | | | | | | | | | | | | |
| *List below Clubs, Services* | | | | | | | Debate | | | | | | |
| | | | | | | | Dramatics | | | | | | |
| | | | | | | | Choir | | | | | | |
| | | | | | | | Glee Club | | | | | | |
| | | | | | | | Band | | | | | | |
| | | | | | | | Orchestra | | | | | | |
| Football | | | | | | | Nat'l Honor Society | | | | | | |
| Basketball | | | | | | | | | | | | | |
| Hockey | | | | | | | Quill and Scroll | | | | | | |
| Swimming | | | | | | | | | | | | | |
| Baseball | | | | | | | | | | | | | |
| Track | | | | | | | | | | | | | |
| Golf | | | | | | | | | | | | | |
| Tennis | | | | | | | | | | | | | |
| Gymnastics | | | | | | | | | | | | | |
| Skiing | | | | | | | Special Honors: | | | | | | |
| Wrestling | | | | | | | | | | | | | |
| Bowling | | | | | | | | | | | | | |
| G. A. A. | | | | | | | | | | | | | |

COMMENTS For additional information see
GIVE DATES

12D

### STAFF EVALUATIONS—BEHAVIOR TRAITS

Grades 7-12

Circle the appropriate grade level.

| Trait | Level | | | | | |
|---|---|---|---|---|---|---|
| **Cooperation** Consider willingness to work with people. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Outstanding | Usually willing | When convenient | Indifferent | Unwilling |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |
| **Emotions** Consider reactions in various situations when stress is likely. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Unusual balance | Well balanced | Fairly well balanced | Easily depressed or elected | Unresponsive |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |
| **Initiative—Industry** Consider ability to see things to do. Resourcefulness. Personal drive. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Seeks additional tasks | Does supplemental assignments | Does ordinary assignments | Needs occasional prodding | Needs constant prodding |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |
| **Judgment—Common Sense** Consider ability and foresight in decisions. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Sound decisions | Good conclusions | Fair deductions | Poor results | Lacks ability |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |
| **Leadership** Consider ability to get others to do what he wishes, to plan and organize. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Consistently leads | Usually leads | Occasionally leads | Seldom leads | Never leads or leads negatively |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |
| **Personality** Consider mannerisms. General impression on others. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Sought out | Well Liked | Accepted | Tolerated | Rejected |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |
| **Reliability** Consider dependability, trustworthiness. | *Junior H. S.* | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 | 7 8 9 |
| | | Absolutely reliable | Reliable | Usually reliable | Erratic | Unreliable |
| | *Senior H. S.* | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 | 10 11 12 |

The above ratings are impressions at a given time, not final judgments.

### FOLLOW-UP RECORD

GIVE DATES

Residence

Marriage

College and Other Schools

Transcripts sent to:

Employment

Community activities

**FORM 17B (Back).**

Name (Last—First—Middle) Birthdate Father Mother

Address Telephone Family Physician Business Telephone

Address Telephone Family Dentist Business Telephone

| **Special Health Problems** | Date | Date | Date | Date | | Date | **Medical History** | Date |
|---|---|---|---|---|---|---|---|---|
| | | | | | Measles | | Other Diseases | |
| Dental | | | | | Chickenpox | | | |
| Speech | | | | | Whooping cough | | | |
| Home Conditions | | | | | Mumps | | Operations | |
| Social Problems | | | | | Pneumonia | | | |
| Emotional Problems | | | | | Rheumatic fever | | | |
| Psychological Problems | | | | | Allergy | | Accidents—Injuries | |
| Reasons for Extended Absences | | | | | Frequent colds | | | |
| 1. | | | | | Ear infections | | | |
| 2. | | | | | | | | |
| Recorder—Note Briefly—Detail in Notes | | | | | | | | |

| **Immunizations and Diagnostic Tests** | Date | Date | Date |
|---|---|---|---|
| Diphtheria | | | |
| Tetanus | | | |
| Whooping cough | | | |
| Smallpox | | | |
| Poliomyelitis | | | |
| Tuberculin tests | | | |
| Chest X-ray | | | |

**Health Classification for Athletics***

| Grades | 9 | 10 | 11 | 12 | | |
|---|---|---|---|---|---|---|
| Accepted | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Rejected | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**Health Classification for All School Activities and Athletics***

| | Date | Date | Date | Date |
|---|---|---|---|---|
| | Kgn—☐ | 4th—☐ | 7th—☐ | 10th—☐ |

| **Vision** | | **Hearing** | |
|---|---|---|---|
| Date | | Date | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Physical Examinations**

| Date | Significant Findings | Grade | Date | Significant Findings | Grade | Date | Significant Findings | Grade | Date | Significant Findings | Grade | Date | Significant Findings | Grade |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Height | | Weight | Height | | Weight | Height | | Weight | Height | | Weight | Height | | Weight |
| | Physician's Signature | | | Physician's Signature | | | Physician's Signature | | | Physician's Signature | | | Physician's Signature | |

*Health Classification for All School Activities and Athletics

1. May participate in a full school program including all activities in the curriculum (Band, club activities of an active nature, physical education, etc.).
2. No swimming.
3. May engage in mild activities such as ping pong, bowling, shuffleboard, archery, quiet games, etc.
4. Needs an individualized school program to be planned with school physician, nurse, counselor, physical education instructor and home room teacher (Cardiac cases, convalescence after severe illness or accident, etc.). No up or down stair travel.
5. Rest program. No physical activity, such as carried on in physical education classes, band, extra-curricular or club work of an active nature.

PUPIL'S HEALTH RECORD
104 (20M 7-55) Vocational School Print Shop

MINNEAPOLIS PUBLIC SCHOOLS
H PE & R

**FORM 17C (Front).**

Name (Last—First—Middle)

**Dental Health Status** (Entered by Dental Hygienist) First entry in first column. Each subsequent entry in the next column. Code: G—Good, F—Fair, P—Poor, VP—Very Poor, P—Permanent, D—Deciduous.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | | | | | | | | | | |
| Condition of teeth | | | | | | | | | | |
| Progress Report | | | | | | | | | | |
| Correction completed | | | | | | | | | | |

**Speech and Reading Disabilities** (To be entered by Special Teacher). Put first entry in first column and each subsequent entry in the next column.

| | | | | | |
|---|---|---|---|---|---|
| Date | | | | | |
| Type of Defect and Report of Treatment | | | | | |
| Teacher's Signature | | | | | |

| | **Psychological Findings** | | | **Visiting Teacher's Record** | |
|---|---|---|---|---|---|
| | Date | Date | Date | Date | Date |
| Record of Contacts | | | | | |
| | Signed by | Signed by | Signed by | Signed by | Signed by |

**Notes** (Medical, Nursing, Dental, Social, Psychological, Speech) **Recorder please date and sign all entries.**

| Date | | Date | |
|---|---|---|---|
| | | | |
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**Growth Record**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | | | | | | | | | | |
| Height | | | | | | | | | | |
| Weight | | | | | | | | | | |

**FORM 17C (Back).**

NAME HOME ADDRESS TELEPHONE BIRTH DATE

| | | | | | | |
|---|---|---|---|---|---|---|
| YEAR | | | | | | |
| SCHOOL | | | | | | |
| GRADE | | | | | | |
| CHRON. AGE | | | | | | |
| Notes on Elementary School Experience: / RECORD OF CLASS WORK | FIELD OF STUDY | FIELD OF STUDY | FIELD OF STUDY | FIELD OF STUDY | FIELD OF STUDY | FIELD OF STUDY |
| COMMENT | | | | | | |
| ACADEMIC APTITUDE | TEST · Sc. · I.Q. · %ile° | TEST · Sc. · I.Q. · %ile | TEST · Sc. · I.Q. · %ile | TEST · Sc. · I.Q. · %ile | TEST · Sc. · I.Q. · %ile | TEST · Sc. · I.Q. · %ile |
| READING | TEST · Sc. · P.S. Gr. · %ile° | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile |
| Explanatory notes concerning test scores and percentiles / ACHIEVEMENT TESTS & OTHER TESTS | TEST · Sc. · P.S. Gr. · %ile° | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile | TEST · Sc. · P.S. Gr. · %ile |

NOTES

°Indicate basic Group (public school, independent school, local, etc.)

PRINCIPAL'S RECOMMENDATION:

This space reserved for notes by College Admissions Officer or Employer:

FORM 18 (Front).

NAME BIRTHDATE BIRTHPLACE ADDRESS TELEPHONE

| FAMILY | OCCUPATION | EDUCATION | RELIGION | HEALTH | DECEASED DATE |
|---|---|---|---|---|---|
| FATHER | | | | | |
| MOTHER | | | | | |
| STEP PARENT OR GUARDIAN | | | | | |
| SIBLINGS | — — — | — — — | BIRTHDATE | — — — | — — — |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Note here everything of significance concerning health of members of family, place of birth, citizenship, language spoken in the home, study conditions, type of community in which the family has lived, or any other matters which simplify significantly the description of the home.

| | | | | | | |
|---|---|---|---|---|---|---|
| YEAR AND AGE | | | | | | |
| COUNSELOR | | | | | | |
| ATTENDANCE | | | | | | |
| DISCIPLINE: ACADEMIC, PERSONAL | | | | | | |
| INTERESTS: IN SCHOOL, OUT OF SCHOOL | | | | | | |
| VOCATIONAL EXPERIENCES | | | | | | |
| NOTABLE ACCOMPLISHMENTS | | | | | | |
| HEALTH AND PHYSICAL VIGOR | | | | | | |
| EDUCATIONAL AND VOCATIONAL PLANS | | | | | | |
| BEHAVIOR DESCRIPTION: RESPONSIBILITY DEPENDABILITY | | | | | | |
| BEHAVIOR DESCRIPTION: CREATIVENESS AND IMAGINATION | | | | | | |
| BEHAVIOR DESCRIPTION: INFLUENCE | | | | | | |
| BEHAVIOR DESCRIPTION: SOCIAL ADJUSTMENT | | | | | | |
| COUNSELOR'S NOTES | | | | | | |
| REMARKS | | | | | | |

**FORM 18 (Back).**

tional Records Bureau cumulative record card, but it omits the graph of percentile ratings on the test results and it provides more space for comments and notes. The top portion of the back page is very much like one section of the American Council folder. A section for behavior description is provided, but this is much less extensive than the one on the American Council form.

This form is obviously not original; it consists rather of a rearrangement and "boiling down" of categories which have appeared on other records. Schools are entirely free to make use of any of the ideas presented on the card without obtaining special permission.

## BASIC CONCEPTS IN THE CONSTRUCTION OF A CUMULATIVE RECORD SYSTEM

As indicated in the preceding chapter, a committee that sets out to devise a cumulative record plan for a school system should begin with a study of the school itself in order to determine what the school is doing and what it hopes to accomplish. The first step is to secure a list of objectives. Once this has been accomplished, the committee will naturally wish to find out what has been done in other places that can be utilized in meeting the recording needs of the local school. An examination of samples of records developed in other school systems will, no doubt, reveal items which are suited to the local situation, but the discovery of these items will not be the major outcome of such a study. The most important result of a study of the more carefully prepared records now available is the development of certain basic concepts which will have a very important influence on the kind of records set up by a school.

Some of the more important concepts which pervade the best cumulative records produced thus far are as follows:

### 1. THE CONCEPT OF THE CHILD AS A DEVELOPING ORGANISM

Even the best of records consists of a series of snapshots taken at various points in a child's development. These must be combined in such a way that one studying the records sees not the snapshots but a motion picture—a continuous story of an important segment in the life of an individual.

### 2. THE CONCEPT OF CONTINUITY IN EDUCATION FROM THE KINDERGARTEN THROUGH THE JUNIOR COLLEGE

For administrative purposes we divide the educative process into certain artificial units—elementary school, junior high school, senior high school, junior college, and so forth. Between each two units there is a break calling for adjustments on the part of both pupils and teachers. Continuous records, with provision for passing them freely from one school to another, can do much to improve the articulation between successive units and thus greatly improve both the adjustive and the distributive aspects of guidance.

### 3. THE CONCEPT OF ORGANIZATION ACCORDING TO TIME SEQUENCE

Some cumulative records present a confused picture; they may contain much useful data, but considerable time and energy must be expended merely in going over the record and in getting the essential facts arranged in relationship one to the other. One of the most helpful contributions to record keeping that has ever been made is the principle of organization according to time sequence. Busy administrators, teachers, and counselors find records in which the data are clearly classified by school years, and often by months within each year, a welcome contrast to records that are not arranged chronologically. No school in setting up a new record system can afford to neglect the need for making the cumulative record inherently a growth record.

### 4. THE CONCEPT OF COMPARABLE MEASUREMENT

A cumulative record without measurement is like a picture out of focus—there results a blurred and indistinct impression of the individual, but the whole lacks definiteness and assurance. It may be objected that measurement may very easily give a false impression of definiteness, and that there will be a tendency to read too much into the test scores. This is probably true if the measurement is made at only one point in the pupil's history and if the interpretation is placed in unskilled hands. But a program of comparable measurements conducted annually by competent persons should result in well-placed confidence, in definite evidence of achievement and growth, tempered by an awareness of the limitations that are involved in all objective data relating to living human beings.

The measurement program should be as broad and as thorough as the resources of the school will permit, for

the more inclusive the data, the less the chance of drawing incorrect conclusions. It is desirable for the measurement program to include annual records of anthropometric data, health examinations, academic aptitude tests, achievement tests in all subjects studied by the pupil, and a limited number of personality and interest tests.

### 5. THE CONCEPT OF GRAPHICAL PRESENTATION OF NUMERICAL DATA

Most persons have rather definite opinions about graphs. Some persons are opposed to them either because they do not understand them or feel that many people cannot make them out; others, among whom are some mathematicians, prefer to deal with numbers rather than graphs, because they know that numbers can be manipulated in ways that graphs cannot. On the other hand, there are those who want a picture of everything and feel that they can make their interpretations much better if they are able to see data in graph form.

To meet these individual preferences, it is desirable to present data in the cumulative record both numerically and graphically. Aside from personal preference, there is an excellent psychological basis for using graphs to supplement numerical data wherever possible. The principle is really a dual one. In the first place, the mind can apprehend position more quickly than it can apprehend numerical value, and, in the second place, a group of positions can be taken in at a glance, but a group of numbers cannot be digested with one sweep of the eyes. The numbers must be brought into consciousness and interpreted one after another before a generalization can be drawn concerning whether a pupil stands high or low in aptitude, achievement, and so forth. Therefore, in interpreting numbers—for example, test scores or grades—one is forced to go from the particular to the general. In interpreting a graph, however, one may work either way; he may, if he wishes, get his generalization before he particularizes, or even, if he is in a great hurry, generalize without particularizing at all. Thus, one will glance at a series of cumulative records of aptitude and achievement, as entered on the Educational Records Bureau cumulative record card, and say, even while glancing at them, "this boy is high in ability and achievement; this one is low; this one has good ability, but his achievement is not up to capacity"; and so forth.

By no other device could such rapid generalizations be achieved. This point is of great importance and should be carefully considered by every records committee. It is safe to say that the average person—even the average teacher—has to learn to like records which are new and strange to him. In the beginning, if he is faced with a mass of detail in records, his natural tendency is to avoid them, for they make his head ache and are otherwise distasteful. But if he can go to the record and get a quick picture of the aptitude and achievement of a problem pupil within a few seconds, he will use the records because they save his time and help him in his work. Certainly the use of records should not stop with a general impression concerning only certain aspects of a pupil, but in the beginning the general picture obtained from the graph is the best single point of contact in the popularization of the records within the faculty. Moreover, the general impression given by the graph will continue to be useful even for persons who are very familiar with cumulative records, for each detail is seen in relation to the whole objective record, just as a detail in a picture takes on added meaning when seen against a background.

### 6. THE CONCEPT OF BEHAVIOR DESCRIPTION

One of the outstanding contributions to record keeping has been the observation that if one secures a record of a pupil's behavior, not complicated by the opinion of the person who sets it down, one then has an objective record. The result is not a record that can readily be treated quantitatively, but nevertheless, in dependability, it compares favorably with a numerical record. Regardless of whether one prefers the anecdotal record plan or the Behavior Description form which has evolved out of the Eight-Year Study, or some other plan, provision should certainly be made for the description of behavior in any new cumulative record form that is set up. To neglect this aspect of the record is simply to fail to take into account one of the most fruitful recent trends in the philosophy of education. This is the balance wheel in the records system—or, to change the metaphor, it is the perfect foil for any tendency to overemphasize academic marks and achievement test data.

Finally, there is an emergent concept that will probably affect the recording of the results of measurement in the near future. This concept, which is not yet widely enough recognized to be listed definitely as one that records committees should utilize, is the idea of a common scale for all test data—a scale that is based on a defined group. The best illustrations of the application of this concept are the Scaled Score system used with the Cooperative tests and the converted scores used with the tests of the College Entrance Examination Board. When school people generally come to understand a system of this kind and to realize its advantages, such a plan may largely replace the recording of test results in terms of raw scores and percentiles.

## REFERENCES


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CHAPTER XIV

# *Reports to the Homes*

IT IS WIDELY RECOGNIZED THAT CORDIALITY AND mutual understanding between the school and the homes of the pupils are important in a guidance program. The relations of the school with the home may take many forms, but the one type of contact that can be counted upon to reach every home served by the school is the periodic report of pupil progress. Reports to the home are therefore a major technique in the functioning of a program of individual guidance, just as they are in school administration and public relations. In summarizing a study of recording and reporting of pupil progress at the secondary school level, Vredevoe and Lindecamp (55) said, "The study revealed that no part of the program of communication with parents is of greater importance or influence than that which attempts to report achievement, growth, or progress of the individual pupil in the school."

Report cards are one of the oldest of the forms used by the school, probably antedating all record forms except the school register. The original purpose of report cards was to inform parents how their children were getting along in school, and this has been their main function at all times. The best reporting technique is the one which gives the parent the most complete and reliable information about the school history of his child, within the limits of the time that both teachers and parents can be expected to spend on this matter. The information sent to the home obviously should be based on those kinds of achievement and growth which the school is trying to develop in its students.

Report cards are only one of several devices for informing parents concerning the school achievement and growth of their children. In place of report cards, some schools employ letters written by teachers, letters written by pupils, personal interviews, or visits to the home. Some type of report form, however, continues to have a place in the reporting systems of the great majority of schools. In general, reporting procedures continue to be a good deal more conservative and traditional than one would infer from reading some of the articles in current literature purporting to set forth newer practices.

## MARKING SYSTEMS

Although a detailed treatment of the theory and practice of marking falls outside the scope of this book, it is impossible to discuss report cards without giving some attention to it. The traditional plans for grading pupils have been under fire for many years, and the literature relating to marking systems has grown voluminous. The most common marking plans are the percentage system, the symbolic or categorical system, the dichotomous system, and some type of mark, such as the accomplishment quotient, to indicate the relationship of the pupil's achievement to his ability.

The percentage system is the oldest and, in most ways, the least satisfactory plan of marking. Numerous objections against it have been advanced. One of the most important is that its three reference points—0, 100, and the passing mark—are not stable and cannot be rigidly defined. Another valid criticism of this time-honored plan is that it provides for much finer distinctions than human judgment has the capacity to make. Nevertheless, a considerable number of schools cling fondly to this procedure, even though it is not in harmony with modern techniques of appraisal.

The symbolic or categorical system is one in which letters, such as A, B, C, D, and F, or numbers, as I, II, III, IV, and V, are used to characterize the achievement of the pupils. It is usually a five-point system, although sometimes it includes three, seven, or even nine groups. One argument in favor of it when contrasted with the percentage plan is that persons are able to form fairly valid judgments concerning individuals by classifying them into about five groups, whereas an attempt to classify them into 101 groups is futile.

The symbolic system may be clarified and rendered definite by relating it to the normal curve. One common plan for a five-point system is to assign a mark of C to all pupils falling between plus and minus 0.5 sigma; B to those between plus 0.5 sigma and plus 1.5 sigma; D to those between minus 0.5 sigma and minus 1.5 sigma; A to those above plus 1.5 sigma; and F to those below

minus 1.5 sigma. In a normal distribution, this results in approximately the following percentages of the different marks: A, 7 percent; B, 24 percent; C, 38 percent; D, 24 percent; and F, 7 percent. The marks in this system may be further clarified by paragraph statements supporting them.

The staff members of a considerable number of schools, believing that comparisons among pupils are invidious, have minimized these comparisons as much as possible by adopting a system in which a dichotomy is created. The only grades they assign are *pass* or *fail, satisfactory* or *unsatisfactory, mastery* or *failure to master.* It is stated in favor of this plan that since all pupils who do satisfactory work receive the stamp of official approval, harmful competition is greatly minimized. Nevertheless, it must be admitted that a good many schools that have tried this plan have not found it wholly satisfactory, but have gradually and half unconsciously abandoned it and returned to a symbolic system. The first step away from the dichotomous system is usually the addition of a middle group because of the feeling that *pass* and *fail* do not take care of the situation. A little later, perhaps an honors group is added, and soon the school finds itself using a five-point system, even though its grouping may not be called A, B, C, D, and F. In fact, the attempt to classify the school achievement of all pupils as satisfactory or unsatisfactory is at variance with what we know about the distribution of individuals on any characteristic. They are not readily divided into two clear-cut groups, for they vary all the way from extremely favorable to very unfavorable, and most of them cluster near the average.

Some 25 or 30 years ago, the accomplishment quotient, or AQ, popularized by Franzen, had a flurry of popularity which has not entirely disappeared in some places. The AQ equals the educational age divided by the mental age, or the EQ divided by the IQ. It is an interesting commentary upon the thinking that is sometimes done about marking that some persons who are vigorously opposed to placing pupils along a scale and comparing them with one another subscribe to the accomplishment quotient, which is simply a ratio between the placement of a pupil on two scales in which he is compared with other pupils. Presumably, the reason that they are willing to accept in one instance what they reject in the other is that they feel that the accomplishment quotient gives every child the same chance to stand high—the dullard as well as the bright pupil. As a matter of fact, it does not. The pupils with high IQs are placed under a handicap by this plan, so that their accomplishment quotients will probably be lower than those of their less fortunate classmates. One of the bases of this phenomenon is opportunistic. The teachers tend to prod the slow pupils, and to let the bright ones shift for themselves. Consequently, the dullards often do better in comparison with their IQ because of more attention, and not from any inward drive. The other basis is statistical. Stated briefly, everyone tends, because of chance errors that are inherent in every measuring instrument, to regress toward the mean of the group on a series of tests. A pupil who makes a very low score on an intelligence test will probably do a little better on subsequent tests of achievement—at least there is a greater chance that he will do better than that he will do worse. Similarly, a pupil whose intelligence score is very high has less chance of making higher average scores on several additional tests than he has of making lower scores.

Moreover, although the accomplishment quotient is a rough measure of working efficiency, it shows nothing about achievement in relation to any defined reference point. At best it may have some limited value when used along with other criteria.

In some schools, the general idea of the AQ is employed even though the Accomplishment Quotient, as such, is not used. These schools attempt to take ability into consideration in the assignment of grades. It should not be thought that this procedure eliminates comparison among pupils, for one cannot obtain either a quantitative or a qualitative expression of the ability of the individual pupil except in relation to that of other pupils. An IQ of 115, for example, is derived from norms resulting from the testing of a large and presumably unselected group of children of the same age as the pupil in question. Nevertheless, when intelligently employed, the marking of pupils on the basis of their ability may be a fruitful plan if the limitations already noted in the discussion of the AQ are kept in mind. For example, according to Keller (25), Sewanhaka High School, Floral Park, New York, which has an enrollment of 3400, for nearly 18 years has successfully used marks that show a pupil's achievement in relation to his ability. Teachers have test data in their class roll books concerning their pupils' IQ, reading grade level, and so forth, and they give careful consideration to these data in assigning marks. Apparently there have been no serious objections from parents, colleges, or employers to this marking procedure, and there is reason to believe that it may have a salutary effect upon the holding power of the school. In 1952, the percentage of drop-outs in this high school was only 13 as compared with 50 for the state as a whole.

In recent years, some persons have become convinced that all marking systems are inherently bad and have gone on record as being opposed to the assignment of any marks whatsoever to the pupils in their schools. There are three main arguments against the use of marks. The first has its origin in research; the second results

from logical inference, supported by experience; and the third arises from mental hygiene.

Beginning with the work of Starch and Elliott about 1912, many studies have been concerned with the reliability of school marks. The evidence of those studies is so well known that it does not need to be presented here. Suffice it to say that Starch and Elliott (49), Wood (58), Ruch (47), and others years ago showed convincingly that the reliabilities of the ordinary school marks based on the traditional essay-type examinations are too low to satisfy the criteria for individual guidance. Even for examinations three hours in length, the reliability coefficients usually fall within the range .60 to .80. It is true that the reliability of marks can be improved by basing them on the results of objective tests, or by using procedures to objectify the judgments of the instructors, but all too few schools have as yet made a serious attempt to place the grading of their pupils on a more objective basis.

The second objection to marking arises out of the observation that marks are general statements of achievement, whereas specific statements are needed in guidance. It may be stated syllogistically as follows: general statements about pupils are of limited value in a guidance program. Marks are very general summary statements involving a multitude of unanalyzed variables. Therefore, marks have limited guidance value. The validity of the criticism is at once apparent to anyone who conducts a case study of a pupil whose marks are unsatisfactory. One is immediately confronted with the problem of collecting a variety of specific facts about the pupil's achievement which will give the marks meaning, reveal the sources of the difficulty, and provide leads for intelligent remedial treatment.

The third argument against marking is the one most frequently advanced by certain modern schools and is also the one which is most vigorously debated. This objection to marking is that assignment of marks causes pupils to compare themselves with each other, and leads to an unwholesome state of competition in which the less able pupils are predestined to lose and consequently develop feelings of frustration, inferiority, and inward rebellion. It may be pointed out in reply to this argument that ability to obtain high marks is just one of many ways in which pupils vary and that the elimination of marking will not thereby create a Utopian institution in which all pupils work together on a basis of complete equality. It may also be insisted that children who experience complete frustration because of low marks and who are unable to find a compensatory source of satisfaction are already mentally and emotionally sick, and are in need of special therapeutic treatment and guidance. Regardless of opinion on this point, the first two arguments against marking are sufficient to give any school pause if it is committed to a practice of indiscriminate marking based on nothing more tangible than teacher opinion and general appraisal on a subjective basis. Marks reach their greatest value when they are supported by objective data and when they provide information concerning the *specific* strengths and weaknesses of students.

## TRENDS IN FORMS FOR REPORTS TO PARENTS

A number of useful studies of report forms have been made during the last quarter of a century. The following outline of the status and trends in reports is based in part on studies reported by Hill (24), Messenger and Watts (32), Pugsley (36), Hansen (21), Brantley (7), Metteer (33), Strang (52), De Pencier (12, 13), Roelfs (42, 43), Duckworth (16), and Vredevoe and Lindecamp (55).

Before note is taken of general trends in reporting procedures, it should be observed that, on the whole, there are some differences between the characteristics of reports in elementary and in secondary schools. Elementary schools have been comparatively free to experiment with new or novel procedures, and many have taken considerable advantage of this freedom. Secondary schools, in part because they must keep records and issue reports which will eventually satisfy not only parents but colleges and employers as well, have been slower to depart from traditional kinds of reports.

The difference between the trends in elementary and secondary school reports is brought out by findings in surveys by De Pencier (12) and Roelfs (42, 43). In a study of trends in reports of pupil progress in the elementary grades over a 12-year period, De Pencier found that the conference or personal interview was emphasized in literature more than any other method. On the other hand, Roelfs, in an analysis of reports employed in 154 junior high schools, found that a printed form of some type was used in every one of these schools.

Home letters are now a common way of reporting by elementary school teachers even in school systems that lay no claim to progressive methods, but the use of this way of reporting is still rather rare in secondary schools.

A newer reporting procedure is not necessarily better than an older one, and it may prove to be actually less satisfactory when it is time tested. In the long run, it will turn out to be an improvement only if it gives parents a better overall understanding of the school progress of their children than was provided by the older procedure. It is not possible to say, on the basis of objective criteria, that the reporting to homes done by elementary schools

is any better than that carried on by secondary schools. It can only be said that elementary school reporting procedures are, in general, less conventional and less formal than the reporting procedures of secondary schools. Some of the specific differences between elementary and secondary school reports will become more apparent in connection with the following statements of general trends.

1. *There is considerable dissatisfaction with systems of marking that encourage comparison of pupils with one another.* In the preceding edition of this book, it was stated that there was *growing* dissatisfaction. The more recent surveys do not indicate that this dissatisfaction continues to grow. In fact, there seems to be some indication that perhaps there is now a slight reversal in trends, and that there is now developing some dissatisfaction, particularly on the part of parents, with systems of marking that give no indication of how a child compares with his peers. As one parent is reported to have said in connection with one of the noncomparative systems of marking, "After six years all I know about Paul's school work is that he is always trying."

Moreover, the dissatisfaction with conventional marking plans probably has never been so widespread as one might think from a perusal of articles on the subject. Those who are not satisfied with the traditional marking plan seem to be more articulate and more vociferous than those who are. At any rate, studies fail to show that comparative marking has been abandoned in more than about 10 percent of the reports sent to homes.

An important criticism of conventional reporting plans is not so much that comparisons are made but rather that the nature of the comparisons is not clarified for parents. Le Baron (26) has stressed the point that the basis of comparison must be made clear and has referred to Olson's "organismic age" as a scale on which individual comparisons may be based. As Olson has explained in his book, *Child Development* (35), organismic age is a technique for showing progress of the individual pupil in relation to the average pattern of progress of all children of the same age. Organismic age is based on development in mental age, reading age, height age, weight age, dental age, grip age, and carpal age. Olson urges that a pupil's school achievement is a function of his total growth and not solely a matter of curriculum or method. It seems obvious that the employment of such a scheme of reference would facilitate the use of the growth and progress type of report which is now increasing in favor in some places.

2. *For years, there has been a trend in report cards away from percentage marking toward a scale with fewer points.* This was shown clearly some 20 years ago when the findings of Hill (24) in 1935 were compared with those of Chapman and Ashbaugh (10) obtained in 1925. The study by Chapman and Ashbaugh showed that in 1925, 29 percent of the elementary school cards, 23 percent of the junior high school cards, and 37 percent of the high school cards used percentages only in marking. In Hill's study, it was found that only 8 percent of the elementary cards, 12 percent of the junior high school cards, and 15 percent of the high school cards employed percentage marking only. Both investigators showed that symbol-percent scales[1] were utilized in 34 percent of the cards. Chapman and Ashbaugh reported only 31 percent using symbolic scales in 1925, whereas Hill found 54 percent using such scales in 1935.

That the trend away from percentage marks has been continued in recent years is shown by Roelfs' (42) study at the junior high school level in 1954 in which it was found that only two out of 154 junior high schools coöperating in the survey used percentage marks.

Marking and reporting systems with a very small number of steps, such as S-U, or H (for honors), S, and U, are frequently recommended, but both Hill's 1935 study, and Roelfs' 1954 survey indicated that in actual practice the five-point scale, such as A, B, C, D, and E, was far more common than other types. Eighty-one percent of Roelfs' 154 junior high schools used five-point marking scales; 12 percent employed more divisions; while only 3 percent used fewer divisions, such as S-U. It is to be noted that Roelfs' study did not include elementary schools. The proportion of elementary schools marking on the S-U basis is undoubtedly somewhat larger. For example, in a survey reported by Strang (52) which included both elementary and secondary schools, in Nassau County, New York, conducted in 1952, 41 of 126 schools stated that they used S-U marks on report cards, while 56 employed the A, B, C, D type of marking, and 29 used numerical marks. A further analysis of these data as reported by Strang is reproduced in Table 5.[2]

3. *There is at least a slight trend toward the reporting of pupil progress in relation to ability.* As stated by Rogers, Rupright, and Gerich (45), "The secondary school is moving toward a means of reporting that considers pupil progress in the light of individual abilities." Attention was called earlier in this chapter to the successful use of this method of reporting over a long period in one high school, Sewanhaka High School, Floral Park, New York (25).

4. *There is a widespread tendency for report cards to include an evaluation of traits other than subject matter achievement alone.* Most cards now give some space to rating character traits and conduct habits, although in

[1] For example, A, B, C, D, F, defined by percentages, as A = 95–100, and so forth.

[2] Reprinted with permission of Dr. Strang and *The School Executive*.

TABLE 5. Methods of Reporting Pupil Progress in Nassau County, New York

| Reporting Methods | Type of Report Card Marks | | | |
|---|---|---|---|---|
| | Numerical | Letter (A, B, C, D) | Letter (S-U) | Total Schools |
| Cards only | 5 | 17 | 6 | 28 |
| Cards and letters | 3 | 0 | 4 | 7 |
| Cards and conferences | 6 | 12 | 13 | 31 |
| Cards, letters, and conferences | 15 | 27 | 18 | 60 |
| Total | 29 | 56 | 41 | 126 |

many cards the trait ratings are very general and perhaps not very meaningful. Roelfs (43) found that behavior was reported in nine out of ten junior high schools. The average number of traits or habits mentioned on the cards studied by Hill (24) was 5.6. According to White (57), there is a trend toward ratings in terms of requisite behavior in connection with each course rather than an overall grade, and this observation is confirmed by some of the other studies.

5. Messenger and Watts (32) observed in their summary in 1935 that *there was a clear tendency to use descriptive rather than quantitative reports.* This tendency has been continued and apparently strengthened since that time. It is a tendency which may not be wholly commendable. A combination of descriptive and quantitative reporting may be the better plan. Certainly, the ultimate purpose of all reporting is clear and accurate description, but quantitative reports may lend greater precision to descriptions, if properly interpreted and used.

6. As was noted earlier, *in some secondary schools and many elementary schools, formal reports are being replaced by notes or letters to parents.* These may be written by the principal, by the teachers, or by the pupils themselves. A still larger number of schools follow the practice of supplementing the more formal report of marks with notes and letters. Moreover, studies show that the great majority of report cards carry some kind of form letter to the parents. Although these messages are sometimes brief, and even curt, they usually contain helpful information and suggestions. A list of items discussed in report letters, together with the percentage of cards in which the items appeared, was given by Hill as shown in the next column (24:118).[3]

| *Items Discussed in Letter* | *Percent of 443* |
|---|---|
| Request for harmony and coöperation | 41 |
| Invitation to confer with teachers | 35 |
| Invitation to visit the school | 32 |
| Request to sign and return the card | 31 |
| The importance of regular attendance | 20 |
| Explanation of marks | 19 |
| Explanation of frequency of issuance | 18 |
| The purpose of the report card | 14 |
| Meaning of parent's signature—it does not necessarily signify approval | 13 |
| Request that parents study card carefully | 9 |
| Explanation of absence and tardy excuses | 9 |
| Character and citizenship as school aims | 8 |
| Importance of home study | 5 |
| Purposes and aims of the school | 4 |
| Bases of promotion | 4 |
| Explanation of the failing mark | 2 |
| Parent-Teacher Association meetings | 2 |
| Miscellaneous (20 different items) | 14 |

The informal letter to parents, supplemented by conferences as needed, is the preferred means of reporting given by a good many present-day writers on reports to the homes. It has been said that "the best report form is a blank sheet of paper in the hands of a well-qualified teacher." This is a kind of catch phrase which sounds well and has wide appeal, but in most school situations it has one basic difficulty. It simply is not true. Most teachers will do a better job of reporting if they may make use of a report form which provides at least some general guideposts to remind them of the essentials which should be included in their reports. Moreover, when the informal letter is used as the sole means of reporting, some difficulties are encountered with regard to the keeping of permanent records of what has been reported. Carbon copies of the letters may be maintained in a file, but these become bulky and are not easily reviewed in order to find out what specific items have been reported and what progress has been made by the individual pupil. The information given in informal letters tends to become rather widely diffused. As noted by Le Baron (26), there is a danger that informal notes will tell parents "less and less about more and more."

Certainly, notes and letters to parents have an important supplementary function to play in reporting, and some teachers may be able to use them successfully as the sole means of reporting, but it remains to be demonstrated that their use on a school-wide basis over a long period is superior to, or even equal to, the use of intelligently prepared report forms which take account of major educational objectives.

7. *Noteworthy attempts are made in some of the more recent report cards to analyze and diagnose a pupil's achievement in terms of the objectives of the school.* Such attempts were not very common in the past. For

[3] Reprinted with Dr. Hill's permission.

example, Pugsley (36) found in an analysis of report cards used in certain schools in New York State in the 1930's that reporting was still highly traditional and that main emphasis remained on common knowledge and skills. Of 63 report cards examined, only six had some sort of statement of the aims and purposes of education, and in only four was there a clear relationship between the stated aims and the group of items in which accounting was made.

Analysis of reporting procedures in the 1950's indicates a good deal more attention to reporting on the basis of objectives. In his analysis of new procedures in marking and reporting, White (57) calls attention to the new philosophy which is first to state objectives and then evaluate the attainment of pupils in terms of these objectives. Roelfs (43) noted in his survey of junior high school report forms that a considerable number of junior high schools were attempting to improve subject matter evaluation by the analysis of each subject into skills or habits and appraisal on the basis of these detailed items. Bolmeier (6), in setting forth ten principles pertinent to marking and reporting pupil progress, stressed the point that evaluation should bear a close relationship to objectives which are considered important to the course, and he presented an appraisal report in actual use which included six of the most significant factors or objectives applicable to most secondary school subjects.

One important educational objective, healthful living, seems to be neglected in most report forms. Duckworth (16), for example, found that health data were included on only five of 24 forms which he analyzed.

8. *Reports are being sent at less frequent intervals, and in some schools only when there is specific occasion for communication with the home.* This tendency was noted by Messenger and Watts (32) and by Hill (24) in the 1930's and apparently it has received increased emphasis in the meantime. Hill in his analysis of report cards found that about half of them were sent out six times a year; one-fourth were sent monthly; while 15 percent were sent only four times a year. Roelfs (43) in his recent analysis of junior high school report forms found that 49 percent were sent every six weeks, a figure which agrees with that of Hill, but 45 percent were sent four times a year as compared with only 15 percent in Hill's survey. However, one-third of the junior high schools sent special reports to the homes as needed. De Pencier (12) in her study of trends in reporting pupil progress in the elementary grades from 1938 to 1949, likewise, found a trend toward less frequent issuance. An important point in favor of less frequent reports is that teachers can do a more thorough job of reporting if they are not required to make the reports too frequently.

9. According to White (57), *there is also a trend toward shorter reports forms.* However, there is so much variation in the size of report cards that it is difficult to generalize. Duckworth (16) observed that the cards he examined varied in size all the way from 39 to 247 square inches.

10. *Parents are being asked to coöperate in building report cards and also to take part in plans of reciprocal reporting and in parent-teacher conferences.* De Pencier (13) described a workshop in Springfield, Delaware County, Pennsylvania in the coöperative planning of report cards. The workshop was made up of representatives of parents, teachers, the administration, and the Board of Education. The group developed two report forms, one for Grade 1 and one for Grades 2-6. Two general areas were covered, "personal and social growth" and "scholastic growth." The card for Grades 2-6 included a total of 53 items grouped under certain heads. Reporting was done three times a year, supplemented by conferences between parents and teacher twice a year. The conferences with parents were scheduled in October and March on school time. A manual of instructions for parents was also prepared.

Flickinger (20) called attention to a two-way report form which was described in the June 14, 1949 issue of *Better Schools,* the weekly news bulletin of the Cincinnati school system. The form, a 4-inch by 6-inch sheet, carried a note which invited the coöperation of parents in providing information concerning their children which would be helpful to the school. One side of the form was used for the school's report, and the reverse side was used for the replies of the parents.

Some schools have abandoned report cards altogether in favor of regularly scheduled conferences with parents. For example, Buswell (8) quoted from the *New Jersey Educational Review* for December, 1948, which reviewed practices in some northern New Jersey schools in which report cards had been eliminated: "Instead of sending report cards, twenty teachers in three townships of Warren County send for parents for fifteen-minute conferences four times a year. An evening or a school afternoon is given up to appointments. . . . For parents the conferences frequently add up to a much needed adult-education course."

Parent-teacher conferences as a means of reporting must be carefully planned if maximum values are to be obtained from them. D'Evelyn (14) has provided a manual on individual parent-teacher conferences for teachers of young children.

Not only should the conferences be planned with care, but so far as possible the information given to the parents concerning the progress of their children should be based on objective evidence of ability and achievement. As stated by Le Baron (26:326), "If we will use the best

available knowledge of child study and child development to arrive at accurate and meaningful evaluations of individual potential and achievement, there is no doubt that parents will welcome personal conferences as the best way to develop a practical program of guidance for their children."

11. *In some schools, pupils coöperate in devising report cards and in evaluating their own achievement.* In the revision of her earlier publication, *Reporting to Parents,* Strang (51) emphasizes reporting as a coöperative responsibility and points out the possibility of having pupils participate in their own evaluation. In a recent article, McCleary (28) described the development and use of a pupil self-analysis inventory for Grades 7 and 8 which was based mainly on pupil suggestions during class discussion. The items in the inventory were stated in terms of specific behavior. The pupil was also asked what, in his own opinion, was the greatest problem which kept him from improving. The pupils check themselves on this inventory and the teacher evaluates each pupil on another copy of the form. Then parent-teacher conferences are held, after which teacher reports are sent home. It was found that the pupil could discuss the report with his parents in terms specific enough to enable them to evaluate his development. This reporting procedure was worked out in the Laboratory School of the University of Illinois.

12. *Finally, there is a recognizable trend toward better administration of procedures of reporting to parents.* In calling attention to this trend, White (57) mentions that one way in which it is being manifested is through the sending of reports for different children at different times rather than to send all reports at one time. This procedure allows teachers more time to give thorough consideration to the evaluation of each pupil, and also attempts to minimize interpupil comparisons.

Valid and thorough reports to parents call for a great deal of the time of teachers. This is especially true where written reports are supplemented by parent-teacher conferences. Administrators are recognizing that the development of understanding of the progress of their children on the part of parents is an important aspect of instruction, and they are showing increasing willingness to allow sufficient time in the regular school day for conferences between teachers and parents, conferences in which the pupils also frequently share.

Modern school administrators also attempt to provide the means whereby teachers may obtain reliable and valid objectives information relative to the aptitudes and achievement of their pupils. As Brantley (7) has said, "The implication is that the school officials know the capacity, interests, and the ability of the individual so well that they can report on whether or not he is making the most of his opportunities. Such an assumption means that wide use must be made of standard tests, personality ratings, and interest questionnaires."[4]

## CRITERIA FOR REPORT FORMS

In an article on the character of a reporting system, Tibbetts (53) gave a good summary of 13 criteria for report cards. The criteria are as follows:

1. A report which requires a minimum amount of clerical work.
2. A report to which the community is educated.
3. A report which promotes understanding both within the home and the school.
4. A report which will inform parents of progress in all phases, physical and social as well as mental.
5. A report which states in simple terms the philosophy of the school; in other words, the ultimate goals of education.
6. A report which includes adjustment to life as well as to school subjects.
7. A report which sets up a standard of value of work for its own sake rather than for marks or other emoluments.
8. A report which is suitable to the age level for which it is made.
9. A report which is understandable to the child himself.
10. A school record which includes both objective and subjective material.
11. A type of record which, in case of transfer, facilitates early and proper adjustment of the child in his new situation.
12. A record and report which shall take into consideration the child as an individual as well as the child as a member of a social group.
13. A type of record and report which will indicate scholastic achievement, individual adjustment, and social growth.

## SUGGESTIONS FOR IMPROVING REPORTS TO THE HOMES

Reavis (37) quoted comments by Lyle M. Spencer in an issue of the *Junior Guidance Newsletter.* Spencer said that schools had tried many schemes of reporting and that out of these experiments had come five suggestions.

1. Set up a coöperative parent-teacher committee to improve your present report form.

[4] Quoted with Mr. Brantley's permission.

2. Encourage teachers to develop ways of making their marks more reliable and uniform. For example, use standardized achievement tests.

3. Provide space on the report card for both teacher and parent comments.

4. Don't confine reports to report cards. Send informal letters to parents between report cards and also use personal conferences to supplement cards.

5. See that report cards, as well as supplementary reports, "accentuate the positive." Include positive suggestions that parents can follow to help their child and also tell them what the school plans to do.

## BASIC PRINCIPLES OF REPORTING

In a well-written article on principles pertaining to marking and reporting pupil progress, Bolmeier (6) discussed ten principles which are as follows:

1. The marking and reporting system should be in harmony with the philosophy of education held by the school for which the reporting system is to be used.

2. The marking and reporting system should be designed and utilized primarily for the purpose of benefiting the pupil rather than the teacher.

3. The marking and reporting system should be developed democratically with the coöperative participation of the person concerned.

4. The marking and reporting system should be sufficiently analytical to be meaningful and informative to pupils, parents, and counselors.

5. The number and nature of the factors to be marked should bear a relationship to objectives which are considered germane to the course.

6. Each factor on the appraisal report should be marked with symbols which are immediately meaningful to all persons who have occasion to review the report.

7. The frequency of preparing reports and submitting them to the homes should be determined on the basis of relative values.

8. The manner in which the appraisal reports are submitted to the parents should be determined by the relative importance of economy and the assurance that they reach their intended destination.

9. The appraisal reports may be used to compute whatever final marks are required but not to revive the antiquated principle of competition.

10. The marking and reporting system should be evaluated continuously and modified, when deemed desirable, in accordance with the same democratic principles by which it was originally designed.

## TYPES OF REPORT FORMS WITH ILLUSTRATIONS

The following illustrative report forms have been selected to represent certain types from a wide variety of forms collected by the Educational Records Bureau. So many forms for reports to homes containing helpful suggestions were available that the problem of selection was a difficult one, and in the case of some of the types represented, the report forms used by several other school systems would have served equally as well as the ones chosen for illustrative purposes.

### OLD-TYPE REPORT CARD

Before the newer plans for reporting are taken up, it may be well to present one or two illustrations in order to call to mind the formal type of report that has been used traditionally in our schools. The most reactionary report which came to light in this survey was a brief *punishment report* from a house of reformation. It is reproduced (Form 19) with fictitious names and with the address of the institution deleted.

Clara Mason No. 5794

*PUNISHMENT REPORT*

**House of Reformation**

Date 3/17/41

Reported by F. C. Horner

For Coming to Bldg without permission

25 lashes

Back 1 grade

**W. J. Brown, Supt.**
**H. of R.**

FORM 19.

It is perhaps stretching a point to include this type of report in the present book, for it is highly improbable that even the most unenlightened school would employ such a report at the present time. It is offered as a reminder of a philosophy and practice of dealing with young people that was widely accepted two or three generations ago and that still persists in certain types of institutions. It constitutes an interesting contrast to most of the illustrative report forms which follow.

Form 20 will serve to indicate the main features of the traditional report card that is still used in a large number

Pupil____________________

| MEANING OF MARKS<br>E—Excellent .. 90-100<br>S—Satisfactory 75- 90<br>P—Poor . . . .65- 75<br>F—Failure . Below 65 | 1st Period 4 Weeks | 2nd Period 4 Weeks | 3rd Period 4 Weeks | 4th Period 6 Weeks | Semester |
|---|---|---|---|---|---|
| Days Present | | | | | |
| Days Absent | | | | | |
| Times Tardy | | | | | |
| Conduct | | | | | |
| Arithmetic | | | | | |
| Art | | | | | |
| Auditorium | | | | | |
| Civics | | | | | |
| History | | | | | |
| Home Economics or | | | | | |
| Manual Training | | | | | |
| Language | | | | | |
| Library | | | | | |
| Literature | | | | | |
| Music | | | | | |
| Physical Training | | | | | |
| Physiology-Hygiene | | | | | |
| Science (N.S.& Geog.) | | | | | |
| Reading | | | | | |
| Spelling | | | | | |
| Writing | | | | | |
| Sunday School Credit | | | | | |

**FORM 20.**

of schools, although unquestionably a decreasing number. It is apparent that this is a monthly report card to inform the parents about the attendance of their child and his achievement in the different school subjects. Achievement is indicated by means of a symbol-percent scale. The only reference to personality or behavior appearing on the card is the one word "Conduct."

It should be stated that this report form, or even the one shown in Form 19, is not *per se* a bad form if it reflects the educational philosophy of the school in which it is used. Notwithstanding the inadequate and undesirable features of these forms, an attack should not be made upon the cards themselves but rather upon the educational philosophy back of them. As Bolmeier (3) appropriately pointed out, the first step in the modernization of report forms is the reëxamination and redefinition of the objectives of the school.

## FORMAL REPORT CARDS SUPPLEMENTED BY PERSONALITY REPORT

Some schools that still retain the formal report card on school achievement have taken a step ahead by supplementing this card with a second report on character or personality. The card shown in Form 21, for example, was devised for optional use as a supplement to the card shown in Form 20.

In this card, 12 character traits have been listed and briefly defined, and provision has been made for marking the pupil as excellent, satisfactory, improving, or unsatisfactory in each trait. Although certain aspects of this form could be improved, it furnishes some worth-while information and it helps to keep the attention of the pupils, parents, and teachers from being focused exclusively upon subjects, marks, and credits.

## MARKS IN EACH SUBJECT SUPPORTED BY COMMENT

In some schools, it is felt that marks are not inherently bad, but that when they stand alone they do not tell enough. Some of these schools have adopted the practice of supporting the mark with a descriptive and interpretative statement written by the teacher. One plan for doing this is to have the mark and supporting comment for each subject written on a separate card. This plan simplifies the administration of the reporting, but it is probably more helpful to the parent in getting a complete picture of the pupil's achievement if all the marks and comments are brought together on a single report form. A simple report form of the latter type which has been used in an independent school is reproduced as Form 22.

A somewhat similar general idea of reporting is found in the Elementary Pupil-Home Report of the Garfield Heights City Schools, Garfield Heights, Cleveland, Ohio, which is illustrated in Form 23. In this form, however, the different subjects or areas in which marks are assigned

## CHARACTER DEVELOPMENT

MEANING OF MARKS: E—Excellent. S—Satisfactory. I—Improving. U—Unsatisfactory.

| PERIOD | 1st | 2nd | 3rd | 4th | Semester |
|---|---|---|---|---|---|
| 1. HEALTH<br>Physical appearance and health habits. | | | | | |
| 2. SPORTSMANSHIP<br>Attitude of fair play; give and take; loyal cooperation and obedience. | | | | | |
| 3. WORK<br>Willingness and diligence in performing tasks; an efficient workman; appreciates dignity of manual labor. | | | | | |
| 4. BEAUTY<br>Interest in and love of the beautiful. | | | | | |
| 5. THRIFT<br>Care of one's own property, that of the school or others; wise use of time and money; habit of saving; school savings account. | | | | | |
| 6. COURTESY<br>Consideration of others; good manners. | | | | | |
| 7. NATURE<br>Interest in and love of nature; care of animal and plant life. | | | | | |
| 8. LEISURE<br>Worthy use of; worthwhile hobbies and interest; wholesome out-of-school activities. | | | | | |
| 9. SERVICE<br>Readiness to assist others; obliging and willing service. | | | | | |
| 10. WONDER<br>The imaginative faculty; wholesome curiosity. | | | | | |
| 11. COOPERATION<br>Good team worker. | | | | | |
| 12. SELF-RELIANCE<br>Independence; self-confidence; accepts responsibility; initiative; doesn't hesitate to try. | | | | | |

**FORM 21.**

are briefly defined, and two marks are given, one for achievement and one for effort. Another feature of this report form is that it provides extensive space for parent comments.

### REPORTS BASED ON COMMENTS BY TEACHERS

Some schools have devised reports that have gone a step further than the preceding report forms in the direction of informality, and have dropped marks from the system, or relegated them to a secondary position, thus making the comments carry the burden of informing parents about the achievement and progress of their children. The report used in the elementary grades of the Webster Groves, Missouri, Public Schools is an example of this plan. The report form is in the nature of a small booklet which is filled out by each teacher. Form 24 exhibits the preliminary statement and the pages which have to do with the report for the first semester (the second semester report is identical).

| | | |
|---|---|---|
| Mathematics<br>Arithmetic | | |
| Algebra | | |
| English<br>Composition | | |
| Grammar | | |
| Literature | | |
| Speech | | |
| Spelling | | |
| French | | |
| Geography | | |
| History | | |
| Latin | | |
| Science | | |
| Writing | | |

**FORM 22.**

| | | |
|---|---|---|
| Art | | |
| Crafts | | |
| Music | | |
| Physical Education | | |
| Deportment | | |
| Effort | | |
| Study Habits | | |
| Social Attitudes | | |

Comments:

Number of school days________

Absences________

Latenesses________

________________
Room Teacher

________________
Director

## ELEMENTARY PUPIL-HOME REPORT

**Garfield Heights City Schools**

Pupil____________________ Grade _______

School Year__________________ Teacher________________

| Attendance Record: | Report No. 1 | 2 | 3 | Yr. |
|---|---|---|---|---|
| Days Present | | | | |
| Days Absent | | | | |
| Times Tardy | | | | |

***This student has been assigned to grade ____ for next school Year.***

Used with permission of the Garfield Heights City Schools.

**FORM 23 (Front).**

**Parent** - Please examine this report; make whatever comments you care to make,in the proper space, below; sign your name, indicating that you have seen the report; and return it to your child's teacher, immediately. You may keep this report at the end of the school year.

**Parent Comment** - First Report Period:

Parent Signature____________________

**Parent Comment** - Second Report Period

Parent Signature____________________

**Parent Comment** - Third Report Period:

Parent Signature____________________

**FORM 23 (Back).**

| ACHIEVEMENT RATING: A—Outstanding; B—Above average; C—Average; D—Below average; E—Below promotion level. EFFORT RATING: G—Good; F—Fair; P—Poor. SUBJECTS | ACHIEVEMENT RATING A, B, C, D, E | EFFORT TO ACHIEVE G, F, P | FIRST REPORT Teacher Comment | ACHIEVEMENT RATING A, B, C, D, E | EFFORT TO ACHIEVE G, F, P | SECOND REPORT Teacher Comment | ACHIEVEMENT RATING A, B, C, D, E | EFFORT TO ACHIEVE G, F, P | THIRD REPORT Teacher Comment | ACHIEVEMENT RATING A, B, C, D, E | EFFORT TO ACHIEVE G, F, P | ☜ FOURTH REPORT YEAR'S AVERAGE ☞ Teacher Comment | ACHIEVEMENT RATING A, B, C, D, E | EFFORT TO ACHIEVE G, F, P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **READING:** Vocabulary, speed, comprehension, oral reading, outside reading, workbook, Weekly News. | | | | | | | | | | | | | | |
| **LANGUAGE:** Mastery of assigned work, correct oral and written usage, oral and written self-expression. | | | | | | | | | | | | | | |
| **SPELLING:** Mastery of assigned words, application in other written work. | | | | | | | | | | | | | | |
| **WRITING:** Mastery of letter formation, spacing and neatness. | | | | | | | | | | | | | | |
| **GEOGRAPHY-HISTORY:** Mastery of content as demonstrated in class discussions and in workbooks. | | | | | | | | | | | | | | |
| **SCIENCE AND HEALTH:** Mastery of content as demonstrated in class discussions, in practice of health habits, and in contributions to class activities. | | | | | | | | | | | | | | |
| **ARITHMETIC:** Mastery of number processes, application of skills to practical problems, accuracy. | | | | | | | | | | | | | | |
| **PHYSICAL EDUCATION:** Class participation, mastery of skills, sportsmanship. | | | | | | | | | | | | | | |
| **MUSIC:** Appreciation of music and application through singing, rhythms, special study and creative activities. | | | | | | | | | | | | | | |
| **ART:** Expression of creative ideas and growth in use of materials. | | | | | | | | | | | | | | |
| **WORK HABITS:** Attention to instructions and explanations, care in following directions, neatness and order, promptness in beginning and ending tasks, ability to work independently. | | | | | | | | | | | | | | |
| **SOCIAL BEHAVIOR:** Courtesy, cooperation, respect for rights and property of others. | | | | | | | | | | | | | | |

**FORM 23 (Inside).**

# Webster Groves Public Schools

Webster Groves, Missouri

Report of:

School________________Grade________

Pupil's Name________________Date________

________________________Teacher

________________________Principal

In recent years we have found that conferences offer the best opportunity for parents and teachers to gain a mutual understanding of the child and his growth.

This report is not a substitute for conferences. In it we have attempted to give you a brief evaluation of the progress your child is making. We have indicated some of the habits and attitudes which seem to be most important. We are especially interested in the way your child makes use of the opportunities which the school offers to him.

We invite your continued co-operation.

Sincerely yours,

Leonard A. Steger, Superintendent.

AIMS AND ACTIVITIES

We believe that our schools should prepare children to live in a democratic society. We try to furnish them with opportunities to learn how to practice democratic living through:

1. Accepting responsibility for oneself and for the group.
2. Recognizing the rights of others.
3. Becoming sensitive to the needs of the group.
4. Developing such qualities as, dependability, cheerfulness, self-control, etc.

We believe that the work habits of children are highly important to their success in learning how to become useful citizens. We try to teach our children to:

1. Plan work systematically.
2. Begin work promptly.
3. Work thoughtfully.
4. Finish woik promptly.
5. Waste no materials.
6. Contribute original ideas and materials.

We believe that children can work and play happily if their bodies are well and strong, so we try to provide a program of healthful school living which will contribute to the welfare of each child. We try to teach such health habits as:

1. Cleanliness.
2. Keeping regular hours.
3. Eating healthful food.
4. Living and exercising in fresh air.
5. Sitting and standing upright.

FIRST SEMESTER

Work habits, attitudes and achievements in Language Arts (Reading, Oral and Written Expression, Spelling and Writing):

Arithmetic:

Social Studies (History, Geography, Community Life, Etc.):

Health and Physical Education:

Science and Nature Study:

Music and Art:



**FORM 24(a).**

Social and Personal Adjustment:

Date Issued______________________________

Days Absent______________Times Tardy______________

Comment of Parent:

Parent's Signature______________________________

**FORM 24(b).**

If a school decides to change from a system of marking to a system of informal comment, it is faced with the question of whether it should abruptly drop marks throughout the school system or should abandon them gradually. In some situations, gradual abandonment of marks may create less serious problems of adjustment to the new plan for both pupils and parents. In a description of report cards without marks developed in the schools of Laramie, Wyoming, Dawson (11) showed how marks were gradually abandoned there by starting with Grade 1 and extending the new system upward a grade each year.

## LETTERS SUBSTITUTED FOR REPORT CARDS

The logical next step in changing from formal to informal reports to parents is to discard all report forms and to send the information by means of letters. Among the schools that led a movement in this direction was the school system of Newton, Massachusetts, which abandoned report cards in the early 1930's (39). Since report letters to parents are of course extremely variable, no attempt will be made here to illustrate this type of reporting.

## NO SET FORM FOR ALL TEACHERS OR DEPARTMENTS —SEPARATE MIMEOGRAPHED OR PRINTED FORMS REPRESENTING TEACHER OR DEPARTMENTAL OBJECTIVES

Another plan for introducing flexibility into the reporting, which does not involve abandonment of report cards, is to have each teacher or each department construct forms for progress reports for the particular subjects or department involved. This kind of report form may readily be changed as often as the objectives of the courses change.

A plan of this kind utilizing mimeographed report forms for the different teachers was used some years ago in the Grand Junction, Colorado, Public Schools. Each teacher made the report blank for his classes, including the objectives that he felt were important and providing spaces for the four marking periods. The pupil was rated on a five-point basis with respect to each objective. The two main divisions were scholarship of the pupil and good citizenship traits. A sample report form devised for reporting on achievement in French and Spanish is shown in Form 25.

One side of a $3 \times 5$ card is used by each department for the home report in the Oak Ridge, Tennessee, High School. The major objectives of the department are printed on the card, and the student is marked on each objective, as well as given an overall grade. The cards are assembled in a small envelope carrying the student's name and address and showing his record of attendance, as well as the key to the grading system. The forms for the fields of speech arts and mathematics are shown in Form 26.

## GROWTH REPORT IN TERMS OF OBJECTIVES FOR EACH GRADE

As already indicated, the report forms that have just been examined illustrate reporting in terms of objectives for a particular subject or field. Many other schools are now basing their reports on objectives. In most of these schools, the tendency is to have the objectives formulated by a committee of teachers, and after careful consideration, incorporated into a printed form. The objectives should be those of the entire program of the school, not simply hastily conceived objectives set up for purposes of reporting.

Among the report forms that illustrate a rather detailed listing of objectives, or desired outcomes of education,

GRAND JUNCTION PUBLIC SCHOOLS

STUDENT'S OBJECTIVE PROGRESS REPORT

Subject: FRENCH Pupil________________________________

SPANISH Teacher________________________________

KEY: (A check mark indicates rank.)

5—SUPERIOR 2—LOWEST ACCEPTABLE WORK
4—GOOD 1—FAILURE
3—FAIR Inc.—INCOMPLETE

| SCHOLARSHIP, KNOWLEDGE AND SKILL | PERIODS 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| *Reading* | | | | |
| Applies rules of pronunciation | | | | |
| Reads rapidly with expression | | | | |
| Translation. (1) Prepared work | | | | |
| (2) Sight work | | | | |
| *Composition* | | | | |
| Oral. Accuracy and fluency | | | | |
| Written. Grammatical rules and spelling | | | | |
| *Important Matters. Positive Response to* | | | | |
| Vocabulary building | | | | |
| Conjugation of verbs | | | | |
| Dictation | | | | |
| Memory work | | | | |
| Cultural essays about the foreign land | | | | |
| GENERAL KNOWLEDGE OF SUBJECT MATTER | | | | |
| SCHOOL CITIZENSHIP TRAITS | | | | |
| Daily assignments prepared | | | | |
| Uses class time advantageously | | | | |
| Makes up work promptly | | | | |
| Respects public and private property | | | | |
| *Attendance.* Times tardy | | | | |
| Times absent | | | | |

____________________ Parent's Signature—1st Period

____________________ Parent's Signature—2nd Period

____________________ Parent's Signature—3rd Period

Used with permission of the Grand Junction, Colorado, Public Schools.

**FORM 25.**

are those of the Cincinnati Public Schools; the Fresno, California, City Schools; the Oklahoma City Public Schools; the Omaha, Nebraska, Public Schools; and the Pasadena, California, Public Schools. The present reports used in the Pasadena Elementary Schools, which are a recent revision of the former growth reports employed there, will be taken as examples in this discussion. There are separate reports for the kindergarten, for Grades

**OAK RIDGE HIGH SCHOOL**

Student____________________

MATHEMATICS

Year: 19_____19_____

| Objectives | Grades 1 | 2 | 3 | 4 | F.G. | Cr |
|---|---|---|---|---|---|---|
| 1. Effort and Preparation | | | | | | |
| 2. Knowledge of Fundamentals | | | | | | |
| 3. Comprehension | | | | | | |
| 4. Neatness and Accuracy | | | | | | |
| 5. Achievement | | | | | | |
| 6. Classroom Attitude | | | | | | |

Teacher____________________

**OAK RIDGE HIGH SCHOOL**

Student____________________

Subject: SPEECH ARTS

Year: 19_____19_____

| Objectives | Grades 1 | 2 | 3 | 4 | F.G. | Cr |
|---|---|---|---|---|---|---|
| 1. Speech composition | | | | | | |
| 2. Voice and diction | | | | | | |
| 3. Position and poise | | | | | | |
| 4. Cultivated faculties | | | | | | |
| 5. Character qualities revealed | | | | | | |
| 6. Citizenship | | | | | | |

Teacher____________________

TEACHER'S COMMENTS

1.____________________

2.____________________

3.____________________

4.____________________

PARENT'S COMMENTS

1.____________________

2.____________________

3.____________________

PARENT'S SIGNATURE

1.____________________

2.____________________

3.____________________

Used with permission of the Oak Ridge Public Schools.

**FORM 26.**

1 and 2, and for Grades 3 through 6. Since these are similar in general features, the forms for Grades 3–6 only will be reproduced and discussed here.

The reporting plan now used in Pasadena seems unique in that it represents an interesting coördination of what is known as the conference report and what is called the progress report. There are four reporting periods. Parent-teacher conferences are held for the first and third reports; the forms illustrated in Forms 27 and 28 are employed as guides for the conferences and are filled out in duplicate as a record for the parent and the teacher of what took place and what was agreed upon in the conference.

The progress report illustrated in Form 29 is sent to parents at the end of the second and fourth reporting periods. It will be seen that the progress report furnishes a rather detailed listing of objectives for the different school subjects and also within the area of social responsibilities, work and study habits, and safety. A conference report is also used at the end of the year.

This somewhat elaborate system of reporting was developed by a committee of teachers, principals, and central office staff members who worked in coöperation with a lay advisory committee. A splendid manual of instruction was prepared as a guide for school personnel in the use of the forms and the total reporting plan (40). This reporting procedure represents a compromise between the informal parent-teacher conference and the more conventional way of reporting to parents. It is designed to bring out the best features of both approaches to the reporting problem.

## DUAL SYSTEMS OF REPORTING—RATING IN TERMS OF OBJECTIVES AND ASSIGNMENT OF MARKS IN THE DIFFERENT COURSES

Two of the most important objections to school marks are (1) that they too often represent hasty and unreliable judgments by teachers concerning their pupils, and (2) that usually no one has any very clear idea of what a given mark means. The various items that should be taken into consideration in the assigning of the marks have not been clearly identified and set down so that teachers, pupils, and parents will all know just what the basis of the marks is. If the elements that make up the marks are clearly stated the marks themselves may be useful as summary indices of achievement, and it must be admitted that they are, regardless of their merit, still necessary evils in transcripts sent to many higher institutions. It would probably be desirable for critics of marks to turn their attention not to the marks themselves but to improvement in the methods used by schools in arriving at them and to the need for eliminating the extreme emphasis that is sometimes placed on marks as goals.

If marks are made the lesser phase of a dual system of reporting, their so-called evils will be greatly minimized. The use of a dual reporting plan may be illustrated by reference to a procedure that has been employed in the University of Chicago High School.

The first step in this plan was the formulation of a complete list of objectives for each course through a series of departmental meetings. In addition to the specific objectives for each course, the school as a whole accepted the following objectives for habits of work:

1. Persistence in overcoming difficulties.
2. Tendency to work independently.
3. Promptness in completing work.
4. Application during study.
5. Attention to class activities.
6. Participation in class activities.
7. Effectiveness in following directions.

In the English Department, separate objectives were set up for each course. In each of the other departments, a common list of objectives was accepted for all the courses within the department, although it was recognized that the emphasis on those objectives would vary from one course to another. Report sheets for the different lists of objectives were mimeographed and on each sheet provision was made for rating the pupil on each objective in one of five categories—excellent, good, fair, poor, and very poor.

The plan of making the report was to send a detailed report in terms of the purposes of each course to the parents at the end of each semester. No marks were reported at this time. A week or two after the detailed reports were made, the marks were sent out. The marks were on a five-step scale—A, B, C, D, and F. Since the parents had already had an opportunity to study a detailed analysis of the strengths and weaknesses of the pupil before the marks were received, they were accepted merely as a supplementary and incidental item of information. In fact, it was found that the pupils could usually predict their own marks accurately merely from a study of the analysis of their achievement in terms of the purposes of the course. Three sample report forms developed under this plan are reproduced as Forms 30A to 30C.

Detailed reports in terms of the objectives of each course are not only valuable in informing parents about the achievement and progress of their children, but they are of great assistance in the individualization of instruction and in guidance, and they have a logical relationship to the cumulative record system of the school. They can be used effectively in individual conferences with both parents and pupils.

PASADENA CITY SCHOOLS

PASADENA, CALIFORNIA

## CONFERENCE REPORT
## GRADE 3

NAME______________________________SCHOOL______________________________DATE__________

**The purpose of the conference is to provide an opportunity for personal and direct two-way communication between the home and the school. The school program is planned to promote growth in fundamental skills and knowledges, work habits, citizenship and social adjustment.**

**SIGNIFICANT BEHAVIORS AND ATTITUDES as discussed by parent and teacher:**

**(Possible areas to be considered are health, citizenship, work habits, family and peer relationships, special interests and aptitudes, goals set for child by parent, child's attitude toward school.)**

**YOUR CHILD:**

**Is doing strong work in**______________________________

**Is doing good work in**______________________________

**Needs to improve in**______________________________

**ACADEMIC ACHIEVEMENT:**

**This reports the child's progress in terms of established grade norms. Standardized tests in skill subjects give insight into only a part of the total school program. It is important to remember that test scores are not absolutes—various factors may condition results of a test given at any one time. However, it is believed that these results are valuable if considered with other factors relating to the child's school progress. On the recent tests your child placed as follows:**

**Standardized Test Results in Terms of Years and Months**
**(The norm for this grade at the time the test was administered was ____________.)**

| READING | |
|---|---|
| Vocabulary | Comprehension |
| | |

**The marks used below report each child's progress in terms of established grade norms as revealed by teacher's judgment and/or standardized achievement tests: A—Very Superior; B—Above Grade Level; C—At Grade Level; D—Below Grade Level; F—Failure.**

**Reading**__________ **Language**__________ **Social Studies**__________

**Arithmetic**__________ **Spelling**__________

**In light of the conference discussion the *teacher* proposes to do the following:** ______________________________

**In light of the conference discussion the *parent* proposes to do the following:** ______________________________

______________________________
**Signature of Teacher**

______________________________
**Signature of Parent**

175-428 WSN 10586 7-54

Used with permission of the Pasadena City Schools.

**FORM 27.**

DUPLICATE

PASADENA CITY SCHOOLS
PASADENA, CALIFORNIA

# CONFERENCE REPORT
## GRADES 4, 5, and 6

NAME________________ SCHOOL____________ GRADE____ DATE______

The purpose of the conference is to provide an opportunity for personal and direct two-way communication between the home and the school. The school program is planned to promote growth in fundamental skills and knowledges, work habits, citizenship and social adjustment.

**SIGNIFICANT BEHAVIORS AND ATTITUDES** as discussed by parent and teacher:

(Possible areas to be considered are health, citizenship, work habits, family and peer relationships, special interests and aptitudes, goals set for child by parent, child's attitude toward school.)

**YOUR CHILD:**

Is doing strong work in________________

Is doing good work in________________

Needs to improve in________________

**ACADEMIC ACHIEVEMENT:**

This reports the child's progress in terms of established grade norms. Standardized tests in skill subjects give insight into only a part of the total school program. It is important to remember that test scores are not absolutes—various factors may condition results of a test given at any one time. However, it is believed that these results are valuable if considered with other factors relating to the child's school progress. On the recent tests your child placed as follows:

Standardized Test Results in Terms of Years and Months
(The norm for this grade at the time the tests were administered was ________.)

| READING | | ARITHMETIC | | LANGUAGE | |
|---|---|---|---|---|---|
| Vocabulary | Comprehension | Computation | Reasoning | Mechanics | Spelling |
| | | | | | |

The marks used below report each child's progress in terms of established grade norms as revealed by teacher's judgment and/or standardized achievement tests: A—Very Superior; B—Above Grade Level; C—At Grade Level; D—Below Grade Level; F—Failure.

Reading______ Language______ Social Studies______

Arithmetic______ Spelling______

In light of the conference discussion the *teacher* proposes to do the following: ________

In light of the conference discussion the *parent* proposes to do the following: ________

Signature of Teacher

Signature of Parent

175-432 WSN 10590 7-54

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**FORM 28.**

The Report of Scholastic Achievement and Attendance of the Bronxville Senior High School, Bronxville, New York, is a still more elaborate system of preparing reports on individual pupils in terms of an extensive and specific list of objectives. Because of its length, no attempt will be made to reproduce the Bronxville reporting plan in this treatment of report forms, but that plan, which has been developed under the leadership of Dr. Howard V. Funk, superintendent, is well worth study by high schools that may be revising their own system of reporting to parents.

Schools with large enrollments per teacher may find that detailed reports in terms of the objectives of each course call for more time than teachers can possibly give to this aspect of their work, important though it is. In such schools, simpler forms must of necessity be used. Bolmeier (6), for example, while recognizing the merit of detailed report forms of the type just illustrated, recommended that the average school system provide "a uniform report from which would list the most significant factors of appraisal applicable to most school subjects." He presented an appraisal report used in the Jackson, Mississippi, secondary schools, and gave a revision of the report form in a later article. The revision is reproduced as Form 31.

## A PROGRESS REPORT

Forms prepared by a subcommittee of the Reports and Records Committee of the Progressive Education Associa-

PASADENA CITY SCHOOLS
Pasadena, California

**PROGRESS REPORT**

**GRADES 3, 4, 5, 6**

Year 19______ - 19______

Pupil's Name______________________

School______________________

Grade______________________

This Progress Report comes to you as an expression of the school's interest in the growth and development of your child. It is designed to inform you of the progress your child is making both in his studies and in his general citizenship.

Coupled with the information given by the teacher during a personal conference, this report should provide you with a complete statement concerning your child's progress in school.

Please feel free to consult with the teacher about any matter that interests you.

STUART F. MCCOMB,
*Superintendent of Schools*

175-429 WSN 10587 7-54

Used with permission of the Pasadena City Schools.

**FORM 29 (Front).**

Teacher's Comments

Teacher's Signature..........................

Principal's Signature..........................

Parent's Comments

Parent's Signature..........................

Teacher Comment

Teacher's Signature..........................

Placement for next year—Grade..........................

Principal's Signature..........................

**FORM 29 (Back).**

The symbols used report each child's progress as an individual and his growth in terms of the teacher's understanding of his ability.

- O Outstanding Growth for this child
- S Satisfactory Growth for this child
- N Not Satisfactory Growth for this child

Plus (+) or minus (—) may be used with the S only

In the subheads a (✓) indicates an area where improvement is needed.

## SKILLS AND KNOWLEDGE

| | Second Report | Fourth Report |
|---|---|---|
| **READING** | | |
| Reads with understanding | | |
| Shows interest in reading | | |
| Reads a variety of materials | | |
| Works out new words | | |
| Reads fluently | | |
| Enjoys good literature | | |
| **ARITHMETIC** | | |
| Understands number concepts | | |
| Computes accurately | | |
| Applies reasoning to thought problems | | |
| **WRITTEN ENGLISH** | | |
| Expresses ideas clearly | | |
| Shows originality | | |
| Uses correct English | | |
| **ORAL ENGLISH** | | |
| Speaks clearly and distinctly | | |
| Uses correct English | | |
| Expresses ideas easily | | |

| | Second Report | Fourth Report |
|---|---|---|
| **SPELLING** | | |
| Learns assigned spelling words | | |
| Uses correct spelling in written work | | |
| **SOCIAL STUDIES (History—Geography—Civics)** | | |
| Acquires knowledge of historical facts | | |
| Acquires knowledge of geography | | |
| Acquires knowledge of civics | | |
| Acquires and organizes reference material | | |
| Plans for class activities | | |
| Participates in group discussion and activities | | |
| Possesses manual skills | | |
| **HANDWRITING** | | |
| Writes neatly | | |
| Writes legibly | | |
| **ART** | | |
| Is interested | | |
| Is creative | | |
| **MUSIC** | | |
| Enjoys singing | | |
| Enjoys listening | | |
| Responds to rhythm | | |
| **SCIENCE** | | |
| Is inquisitive | | |
| Participates | | |
| Is growing in scientific thinking | | |
| **PHYSICAL EDUCATION** | | |
| Participates in group games | | |
| Uses equipment properly | | |
| Exhibits good sportsmanship | | |
| Demonstrates skill in rhythms | | |

## CITIZENSHIP

| | Second Report | Fourth Report |
|---|---|---|
| **SOCIAL RESPONSIBILITIES** | | |
| Is cooperative | | |
| Is courteous | | |
| Accepts suggestions for improvement | | |
| Exercises self-control | | |
| Shows self-confidence | | |
| Assumes initiative | | |
| Exercises leadership | | |
| Gets along well with others | | |
| Seems happy and well adjusted | | |
| Respect for property rights | | |
| Observes school rules | | |
| Respects rights of others | | |
| **WORK AND STUDY HABITS** | | |
| Makes good use of time | | |
| Follows directions | | |
| Works independently | | |
| Listens attentively | | |
| Does neat work | | |
| Uses materials wisely | | |
| Is eager to learn | | |
| Is thorough in his work | | |
| **HEALTH** | | |
| Evidences good health habits | | |
| Takes pride in personal appearance | | |
| **SAFETY** | | |
| Understands and observes safety rules | | |
| Is careful with use of equipment | | |
| **RECORD OF ATTENDANCE** | | |
| Days present | | |
| Days absent | | |
| Times tardy | | |

**FORM 29 (Inside).**

THE UNIVERSITY OF CHICAGO

The University High School

SEMESTER REPORT, ENGLISH..............................

Student.........................................Date..................
Last Name First Name

NOTE.—This report rates the pupil on his attainment of the purposes of the course and on his habits of work. The ratings are made with reference to standards for the class. Omission of a rating on any item means insufficient evidence.

| Purposes | Very Poor | Poor | Fair | Good | Excellent |
|---|---|---|---|---|---|
| Language | | | | | |
| 1. Adequacy of content in papers and talks | | | | | |
| 2. Organization of papers and talks | | | | | |
| 3. Paragraph structure | | | | | |
| 4. Sentence structure | | | | | |
| 5. Vocabulary, diction | | | | | |
| 6. Punctuation | | | | | |
| 7. Manuscript form and appearance | | | | | |
| 8. General accuracy of manuscripts | | | | | |
| 9. Spelling | | | | | |
| 10. Handwriting | | | | | |
| 11. Understanding of grammar | | | | | |
| 12. Effectiveness of oral expression | | | | | |
| Reading and Literature | | | | | |
| 13. Effectiveness in reading | | | | | |
| 14. Range of reading | | | | | |
| 15. Acquaintance with literature | | | | | |
| Habits of Work | | | | | |
| 16. Persistence in overcoming difficulties | | | | | |
| 17. Tendency to work independently | | | | | |
| 18. Promptness in completing work | | | | | |
| 19. Application during study | | | | | |
| 20. Attention to class activities | | | | | |
| 21. Participation in class activities | | | | | |
| 22. Effectiveness in following directions | | | | | |

Comments (if any):

Pupil's Grade.......... ..............................
Instructor

Used with permission of The University of Chicago High School.

**FORM 30(a).**

THE UNIVERSITY OF CHICAGO

The University High School

SEMESTER REPORT, SCIENCE____________________________

Student______________________________________Date_______________________
Last Name First Name

NOTE.—This report rates the student on his attainment of the purposes of the course and on his habits of work. The ratings are made with reference to standards for the class. Omission of a rating on any item means insufficient evidence.

| Purposes | Very Poor | Poor | Fair | Good | Excellent |
|---|---|---|---|---|---|
| 1. Command of significant information and relationships | | | | | |
| 2. Ability to apply principles in new situations | | | | | |
| 3. Ability to plan an experiment and to draw conclusions from experiments | | | | | |
| 4. Interest in science | | | | | |
| 5. Scientific attitude: Openmindedness; habit of not jumping at conclusions; etc. | | | | | |
| 6. Effectiveness in logical thinking | | | | | |
| 7. Effectiveness in oral expression | | | | | |
| 8. Effectiveness in written expression | | | | | |
| Habits of Work | | | | | |
| 9. Persistence in overcoming difficulties | | | | | |
| 10. Tendency to work independently | | | | | |
| 11. Tendency to work effectively with others | | | | | |
| 12. Promptness in completing work | | | | | |
| 13. Neatness of papers handed in | | | | | |
| 14. Application during study | | | | | |
| 15. Attention to class activities | | | | | |
| 16. Participation in class activities | | | | | |
| 17. Effectiveness in following directions | | | | | |

**Comments:**

Pupil's Grade___________ ____________________________
Instructor

**FORM 30(b).**

THE UNIVERSITY OF CHICAGO

The University High School

SEMESTER REPORT, SOCIAL STUDIES III________________

Student______________________________________Date____________________
Last Name First Name

NOTE.—This report rates the pupil on his attainment of the purposes of the course and on his habits of work. The ratings are made with reference to standards for the class. Omission of a rating on any item means insufficient evidence.

| Purposes | Very Poor | Poor | Fair | Good | Excellent |
|---|---|---|---|---|---|
| 1. Acquisition of basic information | | | | | |
| 2. Mastery of basic reading skills | | | | | |
| *a.* ability to recognize main ideas | | | | | |
| *b.* ability to recognize data pertinent to a given question | | | | | |
| *c.* understanding of basic social studies concepts | | | | | |
| 3. Ability to express ideas orally | | | | | |
| *a.* presentation | | | | | |
| *b.* organization | | | | | |
| *c.* adequacy of content | | | | | |
| 4. Ability to express ideas in written form | | | | | |
| *a.* organization | | | | | |
| *b.* adequacy of content | | | | | |
| 5. Ability to make generalizations and inferences based upon facts | | | | | |
| 6. Ability to apply previously acquired information and principles in new situations | | | | | |
| 7. Interest in current affairs | | | | | |
| 8. Courtesy and cooperation in group situations | | | | | |
| Habits of Work | | | | | |
| 9. Persistence in overcoming difficulties | | | | | |
| 10. Tendency to work independently | | | | | |
| 11. Promptness in completing work | | | | | |
| 12. Application during study | | | | | |
| 13. Attention to class activities | | | | | |
| 14. Participation in class activities | | | | | |
| 15. Effectiveness in following directions | | | | | |

Comments:

Pupil's Grade___________ ______________________
Instructor

**FORM 30(c).**

JACKSON PUBLIC SCHOOLS — Secondary Schools
Jackson, Mississippi
JPS Form 36

APPRAISAL REPORT

School________________

Pupil________________ Subject________________

| Factors to be Rated | Very High | High | Average | Low | Very Low |
|---|---|---|---|---|---|
| Achievement on tests | | | | | |
| Quality of recitation | | | | | |
| Quality of completed assignments | | | | | |
| Promptness in completing work | | | | | |
| Persistence for mastery | | | | | |
| Attention to class activities | | | | | |
| | | | | | |
| Number of days absent | | | | | |

Comments (if any) on back of sheet

________ Date ________ Instructor

From E. C. Bolmeier, "Principles Pertaining to Marking and Reporting Pupil Progress," *School Review*, January, 1951. Used with permission of the author and the University of Chicago Press. Copyright, 1951, by the University of Chicago Press.

**FORM 31.**

tion for reporting progress represent one of the most interesting and forward-looking approaches to techniques of reporting to parents, even though these forms first appeared some 15 years ago. The Progress Report, which is printed in two forms, A and B, is shown reduced in size as Forms 32A and 32B.

The Progress Report makes provision for each teacher to appraise the pupil in five areas: success in achieving the specific purposes of the course, progress in learning to think, effectiveness in communicating ideas, active concern for the welfare of the group, and general habits of work, and allows for indication of serious deficiency in certain special work habits. The principal difference between the two forms is that Form A is arranged with columns for the subject fields and provides for a five-point description under each heading and in relation to each area of progress, while Form B has columns for the five descriptive categories and calls for the writing of the names of the subject fields in the proper boxes. Form A is the more conventional, but Form B provides the more graphic picture for the reader and may force more exactness in thinking when the report is made out. Both forms were used experimentally with success by the schools participating in the Eight-Year Study of the Progressive Education Association.[5]

## THE USE OF CUMULATIVE RECORDS IN REPORTING

In schools which maintain individual records for their pupils and which are fortunate enough to be able to get the parents to come to the school for individual interviews at regular intervals, it would seem that no report form other than the cumulative record card should be needed. Three essential aspects of an adequate system of reporting are: ability, present status, and growth. The cumulative record based in part upon objective measure-

[5] Now that the Progressive Education Association is no longer in existence, there is no agency for the distribution of these forms. They are in the public domain and schools are free to use them.

RECOMMENDATIONS FOR NEXT YEAR

(Used only on the next to the last report)

At the present stage of the work the pupil seems, in the subjects listed:

Likely to profit by continuance of the subject............

..................................................

Able to complete the course but with question of the value of continuing it for another year..........................

..................................................

Likely to be unsuccessful in completing the course........

..................................................

(For upper classes only) to show promise for continuing the work successfully at an advanced institution...........

..................................................

GENERAL COMMENT

This comment is intended to give opportunity for presenting information that will make the picture of the pupil's progress more complete. When there are significant interests, abilities, limitations, or contributions made by the pupils, they will be mentioned.

..............................
Adviser's Signature

..............................
Parent's Signature if the Report Is Returned

Name of School..............................

Progress Report of..............................
Pupil's Name

..............................
Grade Date

This report has been prepared for the purpose of presenting information about the development of the pupil. It is an analysis of strengths and weaknesses made by all the pupil's teachers and is intended to prove helpful for present and future guidance of the pupil concerned. The symbols used are abbreviations of the following descriptions of development.

O. The pupil has reached an outstanding stage of development in the field and characteristic indicated; that is, a stage distinctly above that usual for pupils of the same age and similar opportunities.

H. A stage of development somewhat higher than usual, perhaps with promise of eventually reaching a superior level.

U. Approximately the usual stage of development for age and opportunity.

L. Sufficiently below the usual stage to need particular help from home and school or greater effort on the part of the pupil.

S. The pupil is seriously below an acceptable standard.

Advisers and subject teachers are glad to explain or supplement this report by conference with parents. Please arrange appointments by telephone.

Attendance Report through..............................

Days Absent........

Days Tardy.........

EXPLANATIONS OF SYMBOLS: (See complete description on front cover.)
O, is outstanding; H, is above usual; U, is at usual stage; L, is below the usual stage; S, seriously below usual stage.
SPECIFIC WORK HABITS ARE CHECKED ONLY WHEN THEY ARE SERIOUSLY BELOW AN ACCEPTABLE STANDARD.

| | English | Social Studies | Mathematics | Science | | | | |
|---|---|---|---|---|---|---|---|---|
| Success in achieving the specific purposes of the course | | | | | | | | |
| Progress in learning how to think | | | | | | | | |
| Effectiveness in communicating ideas — Oral | | | | | | | | |
| Effectiveness in communicating ideas — Written | | | | | | | | |
| Active concern for the welfare of the group | | | | | | | | |
| General habits of work | Any entry opposite one of the following indicates that the pupil is seriously below an accepted standard in this respect: | | | | | | | |
| Accuracy in following directions | | | | | | | | |
| Efficient use of time and energy | | | | | | | | |
| Neatness and orderliness | | | | | | | | |
| Self-reliance | | | | | | | | |
| Persistence in completing work | | | | | | | | |
| Thoughtful participation in discussion | | | | | | | | |
| Conscientiousness of effort | | | | | | | | |

REPORTS AND RECORDS COMMITTEE OF THE PROGRESSIVE EDUCATION ASSOCIATION. PRINTED IN U.S.A. R.F.B. 1024

Used with permission of Dr. Eugene R. Smith, Chairman of the Committee.

**FORM 32(a).**

## RECOMMENDATIONS FOR NEXT YEAR

(Used only on the next to the last report)

At the present stage of the work the pupil seems, in the subjects listed:

Likely to profit by continuance of the subject____________

________________________________________

Able to complete the course but with question of the value of continuing it for another year________________________

________________________________________

Likely to be unsuccessful in completing the course________

________________________________________

(For upper classes only) to show promise for continuing the work successfully at an advanced institution____________

________________________________________

## GENERAL COMMENT

This comment is intended to give opportunity for presenting information that will make the picture of the pupil's progress more complete. When there are significant interests, abilities, limitations, or contributions made by the pupils, they will be mentioned.

________________________________________

Adviser's Signature

________________________________________

Parent's Signature if the Report Is Returned

Name of School________________________________

Progress Report of________________________________

Pupil's Name

________________________________

Grade Date

This report has been prepared for the purpose of presenting information about the development of the pupil. It is an analysis of strengths and weaknesses made by all the pupil's teachers and is intended to prove helpful for present and future guidance of the pupil concerned. The headings of the columns are abbreviations of the following descriptions of development.

Is Outstanding: The pupil has reached an outstanding stage of development in the characteristic and field indicated: that is, a stage distinctly above that usual for pupils of the same age and similar opportunities.

Is above Usual: The pupil has reached a stage of development somewhat higher than usual, perhaps with promise of eventually reaching a superior level.

Is at Usual Stage: The pupil is at approximately the usual stage of development for age and opportunity.

Is below Usual: The pupil is sufficiently below the usual stage in this field to need particular help from the home and school or greater effort on the part of the pupil.

Is Seriously Below: The pupil is seriously below an acceptable standard in the field indicated.

Advisers and subject teachers are glad to explain or supplement this report by conference with parents. Please arrange appointments by telephone.

Attendance Report through____________________________

Days Absent________

Days Tardy_________

THE SUBJECT FIELD OR OTHER RELATIONSHIP OF THE TEACHER AND THE PUPIL IS FOUND UNDER THE DESCRIPTION AND OPPOSITE THE CHARACTERISTIC DESCRIBED.

| | Is Outstanding | Is Above Usual | Is at Usual Stage | Is Below Usual | Is Seriously Below |
|---|---|---|---|---|---|
| Success in achieving the specific purposes of the course | | | | | |
| Progress in learning how to think | | | | | |
| Effectiveness in communicating ideas — Oral | | | | | |
| Effectiveness in communicating ideas — Written | | | | | |
| Active concern for the welfare of the group | | | | | |
| General habits of work | | | | | |

| General habits of work | Any entry opposite one of the following indicates that the pupil is seriously below an accepted standard in this respect: |
|---|---|
| Accuracy in following directions | |
| Efficient use of time and energy | |
| Neatness and orderliness | |
| Self-reliance | |
| Persistence in completing work | |
| Thoughtful participation in discussion | |
| Conscientiousness of effort | |

REPORTS AND RECORDS COMMITTEE OF THE PROGRESSIVE EDUCATION ASSOCIATION. PRINTED IN U.S.A. R.F.B. 1024

**FORM 32(b).**

ment seems to be more successful in presenting these three indispensable kinds of information than any other report form that has yet been devised.

## THE NEED FOR EXPERIMENTATION WITH VARIOUS PLANS OF REPORTING

Any school which abandons the traditional form of report and begins to search earnestly for better procedures will find itself embarked upon an interesting adventure that calls for a great deal of time and energy on the part of a faculty committee, and that will probably need to be carried on for at least two or three years and perhaps much longer. It is seldom feasible for a school to adopt the report forms devised for some other school system, although valuable ideas can be secured from studying report forms developed in other places, and especially from reviewing the experience of other schools in constructing and using new types of forms.

One of the most striking examples of what may be involved in a search for better reporting techniques is furnished by an experiment described by William L. Wrinkle, formerly director of the College High School, Colorado State College of Education, in his book, *Improving Marking and Reporting Practices* (60). Wrinkle's book provides what is without doubt the most authoritative and challenging discussion of marking and reporting procedures thus far made available. It is based on a school-wide study of the improvement of reporting practices carried on continuously during a ten-year period. During that time the experiment ran practically the whole gamut of forms of reporting that have ever been undertaken by a school or dreamed up by a professor of education for the edification of his students. The College High School tried in succession: (1) detailed reports in terms of objectives; (2) summary statements by the counselors at the close of each quarter in the form of notes and letters written to parents; (3) scale-type evaluations; (4) conferences with parents; (5) checklists based upon questions that always or nearly always arose in the conferences between parents and teachers; (6) a simplified evaluative report which would be easily interpreted by the student and his parents and which would focus their attention on the major objectives of the school; and (7) report forms based on objectives stated as the desired kinds of behavior the school was trying to develop in its students.

Some of the objectives identified were general to all courses, some were semi-general, some were common to two or more courses and activities, and some were objectives of particular courses or activities. The student evaluation report used in the sixth stage of the experiment and an example of the report in terms of objectives developed and used at the end of the experiment are shown in Forms 33 and 34, respectively. The latter form is for reporting to parents on progress in exploratory mathematics. The first seven objectives listed are general ones which would appear on report forms for other courses, but most of the other objectives are specific to this particular course.

The two forms shown are worth careful study, for they represent the end product of years of study and experimentation. But, as Dr. Wrinkle appropriately warned in the introductory chapter of his book, "You should not expect to turn to the last chapter of this book and find the perfect report form. It won't be there. I have never seen one and I am sure you haven't. I doubt if there is one. For what might be good in one school might not be good in another. Each school has to work out its own forms and practices on the basis of its own objectives, its own philosophy, and its own staff."

It is interesting to note that after years of experimentation with a variety of reporting procedures, the College High School arrived at a relatively simple form for reporting in terms of desired outcomes of the school program. This seems to be in line with the experience of other schools. If any generalization can be made as a result of the survey of report forms presented in this chapter, it is that *careful thinking and experimentation on the part of the school faculty seem naturally to lead to reports to parents in terms of the larger general educational objectives, supplemented by the major learning objectives in the various departments of the school.*

A recent brochure by Rothney (46) is a valuable selective summary and interpretation of research on evaluating and reporting pupil progress. This brochure was prepared at the request of the American Educational Research Association and was written especially for the classroom teacher. Among the topics discussed are: the purposes of evaluation, evaluation in terms of objectives of education, assessment of school achievement, assessing personal-social development, what, how, and when we should evaluate, who should evaluate, and procedures of reporting pupil progress.

The most encouraging aspect of present-day reporting is not that perfect report forms have been developed or that the best ways of making reports have been discovered, but that hundreds of schools are experimenting with a variety of new plans and that some of these schools are publishing their experiences so that other schools may benefit by them. As Rothney said in the final paragraph of his brochure: "Research has provided many alternatives to uncritical passive acceptance of pro-

## STUDENT EVALUATION REPORT

The Secondary School of Colorado State College of Education at Greeley

| ................................ | ................................ | ................................ | ................ 193.... |
|---|---|---|---|
| **Student** | **Curriculum area** | **Activity** | **Date** |

Fifty desired outcomes of the total school program have been selected for the purpose of evaluation, record and report. The first ten listed below are general outcomes with which all teachers and all areas of the program are concerned. Evaluations of these general outcomes should be indicated by each teacher reporting. From the remaining items each teacher will report on those relating to the area in which he is working.

Five letters are used to indicate evaluations:

H HONORS: He would be noticeably outstanding in a large group of students of similar age and school level.
S SATISFACTORY: He has demonstrated the ability which should be expected of a student of similar age and school level.
N NEEDS TO MAKE IMPROVEMENT: He has not demonstrated the ability which should be expected of a student of his age and school level.
U UNSATISFACTORY: He is very noticeably weak in the demonstration of the ability being evaluated.
O NO EVALUATION: An evaluation cannot be made at this time because (1) the teacher is not sufficiently acquainted with the activities of the student to permit an evaluation, (2) the activity does not permit a demonstration of the ability, or (3) the student has not shown any observed evidence of the ability.

These evaluations are not competitive; they merely indicate how well the student has done certain things which he should do. Specific interpretations of these outcomes are presented in the bulletin "The Interpretation of the Desired Outcomes and Procedures in the Evaluation of the Student."

**General Outcomes**

—Self-direction
—Social adjustment
—Participation
—Breadth of interests
—Personal attractiveness
—Oral expression
—Written expression
—Basic reading skills
—Location of learning material
—Care of material and equipment

**General Arts**

—Tool skills and techniques
—Planning, drawing and designing
—Selection of materials
—Application of mathematical skills
—Creative ability

**Commercial Education**

| | |
|---|---|
| —Accuracy | Each ability is checked with specific reference to the course in which the student is enroled—typewriting, shorthand, etc. |
| —Legibility | |
| —Neatness | |
| —Speed | |

—Application of mathematical skills
—Ability to apply the skill acquired

**Physical Activities**

—Health practices
—Coordination and skill in physical activities
—Aggressiveness
—Knowledge of rules and techniques
—Adaptation of techniques

**General Language Arts**

—Clearness and distinctness of speech
—Poise and self-confidence
—Voice quality
—Choice of reading materials
—Understanding of dramatization
—Understanding of contemporary affairs
—Creative ability

**The Foreign Languages**

—Comprehension in silent reading
—Rate in silent reading
—Comprehension of the spoken language
—Ability in oral usage
—Interest in language
—Understanding of the contributions of foreign peoples to present civilization

**Journalism**

—Skills in journalistic writing
—Skills in journalistic reading

**Science and Social Studies**

—Selection and use of learning techniques and procedures
—Application of the scientific method
—Interpretation and construction of graphic and statistical materials
—Application of mathematical skills
—Understanding of contemporary affairs
—Understanding of related background
—Creative ability

**Mathematics**

—Accuracy in the use of numbers
—Facility in the use of numbers
—Understanding of mathematical terms and concepts
—Application of the scientific method
—Interpretation and construction of graphic and statistical materials

**Music**

—Basic skills and understandings
—Interest in development of musical abilities

**Additional comments (continue on reverse side)**

**Teacher**................................................ **Supervising Teacher**................................................

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**FORM 33.**

grams of evaluating and reporting that accomplish less than they might because they are static. Those alternatives are for classroom teachers and research workers to appraise continuously our evaluation programs and to persist in their attempts to determine the effectiveness of methods for reporting pupil progress" (46:31).

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EVALUATION OF STUDENT ACHIEVEMENT AND PROGRESS IN MATHEMATICS COLLEGE HIGH SCHOOL OF COLORADO STATE COLLEGE OF EDUCATION AT GREELEY

EXPLORATORY MATHEMATICS

STUDENT ______ COURSE OF ACTIVITY ______ DATE OF REPORT ______

EVALUATIONS ARE MADE IN TERMS OF WHAT MIGHT BE EXPECTED NORMALLY OF A STUDENT OF SIMILAR AGE AND GRADE PLACEMENT. O — OUTSTANDING, S — SATISFACTORY, N — NEEDS TO MAKE IMPROVEMENT. U — UNSATISFACTORY. IE — INSUFFICIENT EVIDENCE.

| Evaluation by Student Teacher | OBJECTIVES |
|---|---|
| ______ | 1. He directs his individual activities effectively, begins work promptly, makes good use of his time, requires a minimum of supervision, does more than the minimum that will be accepted, meets his responsibilities promptly, works effectively when left on his own responsibility, and is regular in attendance except for good cause. |
| ______ | 2. He intelligently follows plans and directions, listens to and reads directions carefully, and follows and completes plans and directions which have been set up. |
| ______ | 3. He gets along well with others, is considerate of the rights and wishes of others, is courteous and tolerant, controls his temper, conforms to reasonable social standards, and adjusts to varied social situations. |
| ______ | 4. He takes an active part in group living, participates in group planning, volunteers his services, and does his share in group activities. |
| ______ | 5. He speaks correctly and effectively, has a pleasant voice, speaks clearly, adjusts his voice to the size of the group, has adequate vocabulary to express himself interestingly, and speaks with ease and confidence. |
| ______ | 6. He is careful of his personal appearance, keeps clean physically, takes good care of his nails, hair, and teeth, selects becoming clothes, keeps clothes neat and clean, has good posture, and avoids distracting habits. |
| ______ | 7. He takes good care of personal and school materials and equipment, shows respect for property, doesn't waste materials or subject equipment to unnecessary wear, returns loaned materials when due, and immediately reports breakage and loss. |
| ______ | 8. He reads mathematical materials with ease and understanding. |
| ______ | 9. He uses the problem solving method, recognizes problems, states them clearly, selects appropriate sources of information, collects and records information, and arrives at accurate conclusions or solutions. |
| ______ | 10. He uses correctly the basic skills in mathematics, uses accurately the fundamental combinations in adding, subtracting, multiplying, and dividing whole whole numbers; uses common and decimal fractions accurately; and selects the correct process in solving problems. |
| ______ | 11. He computes with reasonable speed. |
| ______ | 12. He checks the accuracy of his work by the use of approximation and common sense judgment. |
| ______ | 13. He checks his written work neatly, legibly, and in good form. |
| ______ | 14. He uses easily and accurately, the ruler, compass, and protractor. |
| ______ | 15. He accurately constructs and identifies the basic plane geometric figures. |
| ______ | 16. He applies the basic skills in mathematics in his use of letters and symbols. |
| ______ | 17. He solves algebraic exercises and problems on the basis of understanding rather than the mere application of mechanical skill. |
| ______ | 18. He shows sufficient aptitude to justify encouraging him to enroll in the full year course in plane geometry. |
| ______ | 19. He shows sufficient aptitude to justify encouraging him to enroll in the full year course in algebra. |

______ STUDENT ______ TEACHER

(Teacher's comments, particularly on N, PN, and U Evaluations, are written on the opposite side.)

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CHAPTER XV

# Case-Study Procedures in Guidance

## ORIGIN OF CASE STUDIES

THE CASE-STUDY TECHNIQUE, WHICH HAS assumed an important place in educational procedures, is of ancient origin. It is reported that the oldest known case study is a record of child placement presumably made about 4000 B.C.[1] From that time down to the present, case-study procedures have occasionally been employed, but it was not until the latter part of the nineteenth century that case studies were placed on a well-organized basis in connection with certain professions.

One of the most important developments of the case-study method was in the field of law. Case studies were initiated in the Harvard Law School about 1870 as a device for training students to think about fundamental principles. In the nineteenth century the medical profession began to develop a literature of medicine based on the accurate observation and recording of cases. The case study has now became a fundamental aspect in the training of medical students. Case-study procedures were soon adopted by sociologists because of their obvious value in social investigation. Psychologists were slower to take over the case-study method because, until fairly recently, they were seldom interested in the whole personality. The case study is now a basic method in both psychology and psychiatry.

Schools did not begin to adopt case-study practices until they had been tried out extensively by several of the other professions. As long as teachers were interested mainly in teaching subject matter to groups of pupils, they had no real need for case studies. The modern tendency, however, to redirect education to take account of individual differences and the emphasis on mental hygiene and guidance have brought into sharp focus the need for understanding each pupil. Consequently, a large number of schools have turned to the case-study method as an indispensable aid in making adequate provision for their pupils, particularly for pupils who deviate from the average in any important respect.

[1] Ruth Strang. *Counseling Technics in College and Secondary School,* rev. ed. New York: Harper & Brothers, 1949.

## WHAT THE CASE-STUDY METHOD IS

The term "case study" has been employed in two types of investigation. A study in which real or assumed situations are presented for discussion as a means of arriving at basic principles in a given field or of examining an individual's or a group's understanding of principles has been called a case study. Law case studies are of this type, and some cases along this line have been prepared in the field of educational guidance. For example, a widely used case-study instrument, known as *The Case of Mickey Murphy,* prepared by Warren R. Baller,[2] is designed to give teachers in training an opportunity to interpret a series of situations concerning an adolescent boy and thus to reveal their understanding of growth and development.

A detailed study of an individual, conducted for the purpose of bringing about better adjustment of the person who is the subject of the investigation, is also known as a case study. It is mainly in the latter sense that the term will be employed in this book.

In a case study of this kind, all available data about an individual are surveyed, and the significant items are assembled, organized, and studied in order that the nature and the causes of difficulties may be discovered and that treatment designed to remove the difficulties may be planned and carried out. Thinking will perhaps be clarified if a distinction is made between case studies and case histories. A case history presents the story of an individual in as complete and as objective form as possible. It does not interpret the data and it does not, in itself, bring to a focus the information on the present problems faced

[2] Warren R. Baller, *The Case of Mickey Murphy: A Case Study Instrument for Evaluating Teachers' Understanding of Child Growth and Development, Form T, Enlarged Edition.* Lincoln, Neb.: University of Nebraska, 1955.

by the individual. If the school maintains a complete cumulative-record system, it has many of the elements of a continuous and up-to-date case history for every pupil in the school.

Since the first task in making a case study is to get the facts about the individual, the initial stages of the case study are almost identical with the case history. Thus, if the school has a cumulative-record system, a great part of the arduous work of gathering data for case studies is cared for as a matter of routine. The case study, however, goes far beyond the case history. A case history is to a considerable extent a clerical task, but keen intelligence and insight are called for in making a case study. The facts available in the case history are marshaled together and interpreted, and a diagnosis is made which will serve as a starting point for treatment.

A question may be raised whether the treatment of the case is a part of or a procedure that follows the case study. The case studies and case-study outlines appearing in educational and psychological literature exhibit no uniformity in this respect. Some case studies end with the diagnosis; others report extended treatment and the success that attended the treatment. Notwithstanding the fact that treatment is not included in some case studies, it should be clearly understood that every case study implies treatment; otherwise there would be no point in making the study. After the facts have been analyzed and a tentative diagnosis formulated, treatment should follow and, if possible, should become a part of the case-study record. Whether the treatment is recorded as a part of the case study will depend, to a large extent, on how the case is handled. If the person who initiates the case study also applies the treatment, a record of the treatment will ordinarily be added to the case study. If the case is referred to another person for treatment (for example, if a case of personality adjustment is referred to a psychiatrist), it may not be practicable to report the treatment in the case study. In cases treated by a specialist in psychiatric problems, facts are sometimes discovered which are of such a confidential nature that they should not be set down in writing. In cases of learning difficulty treated in the school, the case study will be much more valuable if it is concluded with a report of the nature of the treatment and of the progress of the pupil during treatment.

## ASSEMBLING AND ORGANIZING DATA IN A CASE STUDY

In a case study of a pupil, usually the first step is to collect from the school records all important information pertaining to the pupil. The question of whether a given item is important will depend on the nature of the case. If the purpose of the study is to discover the causes of, and to prescribe treatment for, an observed difficulty (for example, inability to deal with situations involving numbers), only those items in the records which may contribute to an understanding of the difficulty are of immediate importance. Even in a specialized case of this kind, however, it is desirable to get a complete picture of the pupil, since a particular difficulty can best be interpreted against the background of his whole personality.

If the study is undertaken, not for the purpose of alleviating special difficulty, but for the purpose of arriving at a thorough understanding of the pupil, so that he may be assisted to better adjustment wherever need may manifest itself, every item of information may be important, and the whole record of the pupil should be carefully scrutinized. In schools maintaining cumulative records, including data on the social history, aptitudes, achievement, and personality, the first step of the investigation will be concerned mainly with the pupil's cumulative record card.

Although the school records should supply much helpful information, even the best of records will not provide complete data. As a rule, the data are entered at regular intervals and there will usually be a period of several weeks between the time of the last entry on the record and the time of making the case study. The case investigator will, therefore, find it necessary to interview those who have contact with the pupil, including classroom teachers, homeroom teacher, physical education instructor, librarian or study-hall supervisor, adviser, and possibly the parents. Notes should be made after each of these interviews, or, better still, each of the teachers and other school officers who are in contact with the pupil should be asked to write out a brief statement concerning the child's attainments, growth, and personality.

A third step is to interview the pupil himself and perhaps to give him additional tests. The school records may sometimes provide all the test data necessary, but, if the case is one of learning difficulty in a certain subject, it is improbable that the survey test scores in the school records will furnish an adequate basis for diagnosis. For example, if the case is one of reading disability, a diagnostic silent reading test and an oral reading check test should be employed as a minimum. If the difficulty seems to be in the field of personality, one of the more promising personality inventories, such as the SRA Youth Inventory or the Bell test, may be given, not so much for the purpose of record as for the purpose of securing responses which will form a convenient starting point of interview.

When reasonably complete data about the pupil have been collected, the case should be written up, and a tentative diagnosis and plan of treatment should be formulated. Although a case study could conceivably be conducted without making a written record, the necessity of putting it into writing forces the investigator to clarify his thinking about the individual and provides excellent training in stating, organizing, and interpreting the facts. Even though the plan is to include the progress of treatment as a part of the study, the case should be written up before treatment starts, and, when treatment is applied, this record should be amplified from time to time. When a written record has been made of the case, it will be very helpful to present the case study to the pupil's teachers and to secure their reactions and further suggestions before proceeding with a plan of handling the case.

## OUTLINES FOR CASE STUDIES

There is no set way of making a case study. The outlines will vary with the nature of the case and the preferences of the person conducting the study. If the school maintains a cumulative-record system in which comparable data for a pupil are recorded in organized fashion from year to year, it may be desirable to have the outline of the case study up to diagnosis agree with the outline of the cumulative record. A considerable number of outlines have appeared in the case-study literature, three of which are presented here for illustrative purposes.

### Rivlin's Ouline for the Case-Study Method[3]

- The Complaint
  - Reason for referring this pupil for special study (Include a detailed account of the incident, if possible, giving the time, place, and circumstances.)
  - The probable immediate cause of the incident
  - The approximate length of time during which this type of behavior has been manifested
  - Any other complaints by the same person or by others
  - The name and relationship to the child of the person making the complaint (Does this person make complaints about many children?)
- The Child
  - Present status
    - Age
    - Sex
    - Grade—class—teacher's name
  - Physical appearance
    - General impression made by the child
    - Obvious physical or mental limitations
    - Neatness and condition of clothing
    - Mannerisms
  - Personality traits
    - General emotional tone; for example, cheerful, moody, etc.
    - Attitude toward his family
    - Attitude toward his school
    - Attitude toward his friends
    - Attitude toward himself, his abilities, and problems
    - Play life
    - Hobbies
    - Educational and vocational ambitions
    - Marked likes and dislikes
    - Unusual fears
    - Any special personal problem
  - Educational status
    - Present school achievements
    - History of retardation or acceleration
    - Special deficiencies and proficiencies
    - Past record in work and conduct
  - Results of medical examination
    - Physical defects
    - Efficiency of sensory organs
    - General condition of health
    - Nutritional status
    - Comparison with normal height and weight
    - Muscular coördinations
    - Reduced or exaggerated reflexes
    - Twitchings, tics, tremors
    - Peculiarities of gait or speech
    - Previous health history
- The Environment
  - The family
    - The individuals living at home
    - Apparent economic level
    - Apparent social status
    - Parental methods of discipline
    - Parents' emotional disposition
    - Attitude toward this child
    - Possibilities of securing the home's coöperation
    - Record at other social service agencies
  - The neighborhood
    - Recreational facilities
    - Housing and living conditions
    - Desirability of his playmates
    - Any special obstacle to adjustment

[3] Harry N. Rivlin. *Educating for Adjustment: The Classroom Applications of Mental Hygiene,* pp. 107–114. New York: Appleton-Century Company, Inc., 1936. (Used with permission of the publisher.)

**A. J. Jones' Adaptation of Henry C. Morrison's Outline of the Case Method**[4]

I. Information

A. Symptoms

The first step is always to get at the facts that indicate that the child is a problem case; not his history but the symptoms that have been noted. This involves finding his chronological age, the marks received in various subjects, instances of misconduct, latenesses and absences from school, etc.

All statements must be actually verified. They must be taken from school records when possible and only first-hand information accepted. The information thus obtained will often be sufficient to show that the case is not a problem one at all. Care should be taken here to exclude all that does not have to deal with present symptoms. History is valuable only as it throws light upon the causes of symptoms, but when gathering data on symptoms, history should be excluded. When the data are in, they should be written up and summarized.

B. Examination

With the symptoms noted, more precise information regarding the case is obtained by various tests and examinations. These are, of course, selected with reference to the needs of the particular case. Some of these are given here:

1. Psycho-physical
   a. Vision—normal
   b. Hearing—normal
   c. Coördination (neuromuscular)—no good tests are available, but careful observation will give helpful data
   d. Speech—normal
2. Health
   a. Vital index (height-weight ratio)
   b. Nutrition
   c. Teeth
   d. General physical condition
3. Educational
   Standard tests of various kinds suitable to the grade of the pupil. These are to be used to discover any fundamental weaknesses in his previous training and also to check up on the marks he has received.
4. Mentality
   General intelligence test. It is best to give several types to avoid accidental results.

C. Health and Physical History

Very careful and exact information should be obtained not only of serious illnesses, scarlet fever, measles, etc., but of other illnesses and operations for adenoids, tonsils, and any accidents that may have affected the health or resistance. If possible, a complete record of growth in height and weight and physiological maturity should be obtained and carefully recorded.

D. School History

1. Promotions
2. Kind of work done
3. Changed location—home and school
4. Quality of schools attended
5. Relation with individual teachers

E. Family History

1. Ancestry, parents, brothers and sisters, nationality, mental and criminal history, etc.
2. Economic status and history
   The previous and present financial and economic situation of the family
3. Cultural resources of the home
   Education and training of parents; books, music, and cultural atmosphere of the home
4. Relation with the home—with parents and brothers and sisters
5. Attitude of parents toward society
6. Adjustment of parents to American standards
7. Control exercised by parents of children—kind and amount of control

F. Social History and Contacts

The pupil's social background outside the school and the home

1. Church and Sunday school, boy scouts, etc.
2. Associates
3. Summer camps
4. Gang affiliations
5. Abnormal sex history
6. Court record

II. Diagnosis

This is the working hypothesis of the cause or explanation of the symptoms or the problem and results from a careful analysis of all the data obtained. It is not necessarily delayed until all the evidence is in, for guesses or hypotheses are actually being made and leads followed up at many stages, but the final diagnosis is not actually made until the evidence is in. Possibly, the better statement would be that every

[4] Arthur J. Jones. *Principles of Guidance*, rev. ed. pp. 229–231. New York: McGraw-Hill Book Co., Inc., 1951; adapted from: Henry C. Morrison, *The Practice of Teaching in the Secondary School*, pp. 646–666. Chicago: University of Chicago Press, 1931. (Used with permission of the McGraw-Hill Book Co., Inc., and the University of Chicago Press.)

guess or lead is followed until the worker is reasonably sure from the evidence that it is correct.

III. Treatment

Out of the diagnosis grows the definite systematic treatment. It often happens that the treatment shows that the diagnosis was not correct. In this case, we must go back for further investigation. In one sense, the treatment may be considered as a step in the verification of the hypothesis; in another, it is itself a guess or an hypothesis set up as a possible remedy that itself needs verification by the final step.

IV. Follow-up

It is very necessary to know the results of the treatment in order to check the accuracy of the diagnosis and to modify, if necessary, the treatment. It also aids in later cases that may be similar in nature.

### McCallister's Outline for Case Studies in Remedial Reading[5]

1. Introductory statement—a brief statement which gives the reader the setting of the case
2. Preliminary survey of reading ability
   a. Performance on tests
   b. Reports of instructors concerning school work of pupils
3. Analysis of reading deficiencies
   a. Power of comprehension and interpretation
   b. Rate of reading
   c. Power of perception and recognition
4. Analysis of contributing influences which aid in explaining the origin and cause of deficiencies
   a. Mental ability
   b. Vocabulary
   c. Physical history and health status
   d. School history
   e. Personality traits
5. Diagnosis of the case—a descriptive statement of deficiences with explanation of causes
6. Remedial instruction
   a. Plan of instruction
   b. Types of instruction
7. Progress of instruction—an evaluation of the effectiveness of remedial measures
   a. Practice records
   b. Improvement as shown by eye-movement records
   c. Improvement in performance on standardized tests
   d. Reports of instructors concerning school progress
   e. Evaluation of remedial instruction
8. Significant observations—an interpretation of the more significant facts about the case

Strang[6] has classified and discussed the content of case history under the following headings:

1. First impression of the person and his problem
2. Family history, including information about the emotional relationships in the home and neighborhood
3. Developmental history
4. School history
5. Data on the child's present mental ability and achievement (from standard tests, informal tests, and observation)
6. Educational and vocational plans
7. Interpretation and synthesis of data, with indications for treatment

This outline is simple and clear, and it includes one feature that is omitted from some of the other outlines, namely, "Educational and vocational plans."

The following outline was set up by a school psychologist as a guide for teacher-advisers in making case summaries, which may be regarded as abbreviated case studies.

Introductory statement
Physical condition
Mental ability
Achievement in school
Study habits
Attitude toward work
Interests and special abilities
Personality
Summary

In connection with the work of a laboratory school, a school psychologist and a psychiatrist coöperated in a series of case studies. The psychologist carried on the initial stages of each study and provided a tentative diagnosis. The psychiatrist then took the case over, basing his treatment on a more adequate diagnosis than the psychologist was prepared to make. The outline used by the psychologist in reporting the cases to the psychiatrist could readily be applied to case studies by a classroom teacher. The outline included the following steps:

Introductory statement—identification, age, school grade, etc.
Intelligence
Scores on achievement tests
School progress
Summary of teachers' statements
Learning defects

[5] James M. McCallister. *Remedial and Corrective Instruction in Reading,* pp. 108–126. New York: Appleton-Century-Crofts, Inc., 1936. (Used with permission of the author and the publisher.)

[6] Ruth Strang, *op. cit.,* pp. 208–209.

Social history
Health history
Personality problems
Observation of pupil
Summary
Tentative diagnosis

All the case-study outlines that have been presented in this section have many elements in common. The specific type of outline to be used is not important. Presumably each teacher will wish to formulate his own outline. The main thing is to present the major facts in an orderly fashion and to formulate a plan for using them in understanding and helping the pupil.

## THE CASE-STUDY METHOD ILLUSTRATED

Among the books containing valuable case studies of school pupils are those by Reavis; Smithies; Brewer; Sayles; McCallister; Bennett, Seashore, and Wesman; Rothney; Rothney and Roens; and Snyder.[7] Two significant case studies based on cumulative records were reported by Mrs. Hawkes in Chapter IV of *Guidance in Public Secondary Schools,* published by the Educational Records Bureau. Fifteen case studies written by classroom teachers were included in Chapter XII of the same book (11).

In his book, *The High School Student: A Book of Cases,* Rothney presents 27 carefully chosen and well-written case studies grouped under the following headings: the troubled ones, the ones in trouble, the happy ones, the physically handicapped, and the quiet ones. General principles, problems, and methods of case studies are also discussed in Rothney's book (20).

### A Reading Difficulty Case

The following case study was taken from an unpublished report of the writer when he was a psychologist in a laboratory school. The illustration consists of a case study of reading difficulty in which treatment and progress of treatment, as well as the history of the case, are reported. The procedures utilized in the study are not highly technical, and they could readily be employed by either teachers or counselors.

*Introductory Statement.* Fred entered the subfreshman class of the high school at the age of 13 years, 1 month. His scores on all reading tests taken at the time of entrance were rather low and appeared to indicate reading deficiency. He was therefore placed in the corrective reading section of subfreshman English, in which special attention was given to reading. He did fairly good work in that class and his test scores at the end of the year indicated that he had made considerable progress in reading.

Fred's mother, however, was of the opinion that the boy had gained very little in reading ability during the year. She feared that he was so handicapped in reading that if special steps were not taken he would never be able to do the extensive reading required in the advanced years of high school and in college. The librarian of the high school, likewise, observed evidence of continued retardation in reading. Because of these facts and also because his scores on reading tests were still considerably below the median of his class, special work in reading was undertaken with Fred at the beginning of his freshman year in high school and was continued throughout the year.

*General Ability.* Fred's scores on intelligence tests during his first year in the high school are shown in Table 6.

TABLE 6. Intelligence Test Results of a Ninth-Grade Boy

| Test | IQ | Norm | Median IQ of Class | Quarter Rank in Class[a] |
|---|---|---|---|---|
| Otis Self-Administering | 102 | 100 | 107.0 | 3 |
| Ohio Psychological | 105 | 100 | 110.4 | 3 |
| Stanford-Binet Scale | 109 | 100 | .... | .. |

[a] 1 is the highest quarter.

The results of all three tests show that Fred has normal intelligence. His IQ was between 100 and 110 on all the tests. On the group tests, he was below the median but above the lowest quartile of his class. On the individual test he showed a mental age of 14 years, 11 months at a chronological age of 13 years, 8 months. The examiner who administered the Binet test to Fred made the following note on his test blank: "Fred is very deliberate in his attack upon problems. He works slowly but is usually correct in his conclusions. His type of response is *reflective.*" There is little doubt that Fred has sufficient mental ability to do acceptable, although probably not outstanding, work in the high school.

*Social and School History.* Fred is of German stock. His grandparents came to America from Austria and Germany. Three generations on the paternal side have been engaged in the medical profession. Fred has a brother and a sister, both of whom are pupils in the same high school. The economic status of the family is good. A large and comfortable home is maintained and there are two servants. The boy is much interested in a variety of outdoor sports and has playmates his own age.

Fred is large and mature-looking for his age. The school physician examined him and found that his health in general was good. Bitten fingernails were the only evidence of nervousness. The vision in his right eye was found to be quite

[7] All these books are listed in the references at the end of the chapter.

defective and the physician recommended that he have his eyes retested for glasses. Fred wears glasses now when reading.

If Fred has any serious personality problems, they have not appeared in his work in the high school. He seems to be well adjusted to the social group. Several of his teachers have commented upon his good attitude, his coöperation, and his willingness to profit by criticism.

All of Fred's elementary school training was received outside this school system. His progress through the elementary school was not entirely normal. He repeated one-half year and made up the last half of the sixth grade in the summer. During the first semester that Fred was in the subfreshman class of the high school he had considerable difficulty with the work. At the end of the first semester he had incomplete work in United States history and art appreciation. His written papers were not good because of weakness in spelling, punctuation, and sentence structure, and he required a considerable amount of reteaching. According to the reports of his teachers, Fred did much better work during the second semester of his subfreshman year and he has continued to do acceptable work this year. Fred has not had serious difficulty in school except in reading.

*Evidences of Reading Deficiency.* Scores made by Fred on reading tests since he entered the high school are compared with the test norms and class medians in Table 7.

TABLE 7. Scores on Standardized Reading Tests

| Test | When Administered | Score | Grade Norm | Class Median |
|---|---|---|---|---|
| Monroe Silent Reading | | | | |
| Rate | Subfreshman Year | 77 | 84 | 109.3 |
| Comprehension | " " | 28 | 25.4 | 33.0 |
| Monroe Silent Reading | | | | |
| Rate | Freshman Year | 86 | 84 | 89.0 |
| Comprehension | " " | 30 | 25.4 | 27.3 |
| Thorndike-McCall | Subfreshman Year | 47 | 56.0 | 61.7 |
| " " | Freshman Year | 59 | 61.5 | .... |
| Inglis Vocabulary | Subfreshman Year | 38 | 45.0 | 47.3 |
| Traxler Silent Reading | | | | |
| Form 1 | Subfreshman Year | 61 | 80.0 | 100.0 |
| Form 3 | " " | 71 | 80.0 | .... |
| Form 4 | Freshman Year | 81 | 89.0 | .... |
| Sangren-Woody, Form B | Subfreshman Year | 61.3 | 84.0 | .... |
| Form A | " " | 85.4 | 91.0 | .... |
| Gray Standard Oral Reading | Freshman Year | 37.5 | 48.0 | .... |

The table shows two general facts concerning the pupil's reading ability. First, Fred was retarded in reading in comparison with the grade norm and the median of his class. Of twelve scores, nine were below standard. In five cases where class medians were available, the pupil's scores were decidedly below the medians.

The second conclusion about Fred's reading skill that can be drawn from the test scores is that there was considerable gain during his subfreshman year. The gains shown are as follows:

| *Test* | *Time Elapsed* | *Points Gained* |
|---|---|---|
| Monroe Silent Reading— Rate | 12 months | 9 |
| Monroe Silent Reading— Comprehension | 12 " | 2 |
| Thorndike-McCall | 12 " | 12 |
| Traxler Silent Reading | 12 " | 20 |
| Sangren-Woody | 9 " | 24 |

In spite of these gains, however, the fact that Fred was still below the norm on three of the four tests made remedial work during his freshman year advisable.

Fred was observed, while reading, by the librarian and the psychologist early in the present school year and a number of difficulties were noted. These will be brought out in the diagnosis of the case.

*Diagnosis of Reading Difficulties.* The greatest difficulty revealed in Fred's test scores was a marked slowness in rate of reading. Retardation in rate appeared in every timed reading test administered to him. His rate score on the Monroe Standardized Silent Reading Test in the beginning of his subfreshman year was 77 as compared with a norm of 84 and a class median of 109.3. His score on this test near the beginning of his freshman year was slightly above the grade norm, but was below the class average. On the Sangren-Woody Reading Test, Fred made rate scores of 16.3 and 16.4 at the beginning and the end of his subfreshman year. The grade norm is 21. In the various forms of the Traxler Silent Reading Test he read consistently at a rate of about two words a second, whereas the minimum acceptable rate for his grade is three words a second. His inferior rate of reading was probably due partly to his slow rate of associating ideas with words. This hypothesis is supported by the fact that the speed with which he did a test of rate of association was considerably lower than the average.

The retardation in rate of reading undoubtedly tended to lower Fred's comprehension scores in some of the tests, particularly the Monroe test. However, his rather low scores on the Thorndike-McCall Reading Scale, which has generous time limits, indicate that he was somewhat retarded in ability to comprehend the meaning of reading material, even when he had plenty of time to ponder over it.

Fred's reading vocabulary was not quite as extensive as that of the median pupil in his class, but it was practically up to the grade norm. In fact, his score on the vocabulary parts of the Sangren-Woody and the Traxler tests equaled or exceeded the norm.

It was discovered early in the individual work with Fred that he manifested a tendency toward that type of reading confusion known as "reversals." That is, he sometimes confused letters which looked alike except that their orientation from left to right was opposite one to the other. This tendency was unquestionably present in the case of *b* and *d,* although it was not noted for any other pairs of letters and was not observed in the case of any pairs of words. The case did not appear to be a very serious one, since no reversals except *b* and *d* were noted.

Fred was not greatly interested in reading when he entered the high school and the training in reading given in the English class during his subfreshman year did not succeed in building up an interest of this kind. His mother stated at the beginning of the present year that he read very little at home and that she would be glad if he would read just one book and really enjoy it.

*Aims of Remedial Work.* The purposes of the remedial training in reading given to Fred this year were directly in line with the diagnosis of difficulties. They were as follows:

1. To foster an interest in reading.
2. To build up habits of independent reading.
3. To increase rate of reading as far as native rate of reaction would permit.
4. To develop greater power of understanding reading material.
5. To utilize incidental opportunities to increase the reading vocabulary. Formal training in this respect seemed unnecessary.
6. To overcome the tendency to reverse certain letters.

*Treatment of the Case.* The remedial treatment of the pupil was planned to achieve the purposes that were outlined. The first and most important needs were to plan a program of reading that would stimulate interest and lead to habits of reading. In this part of the work, the remedial teacher had the full coöperation of the school librarian. At the beginning of the year, the librarian drew up an extensive and varied reading list for Fred and throughout the year she was very helpful in supplying books and making additional suggestions.

The pupil met with the remedial teacher one period each week during the 11:00 o'clock hour. Usually the meeting was held on Wednesday. At this meeting the independent reading of the pupil during the next week was planned. Usually the manner of planning followed was for the remedial teacher to select two or three widely different books from the reading list supplied by the librarian and to have Fred examine them and choose the one that he preferred to read. It was generally planned that the pupil should finish the book and return it at the next meeting on the following week. Sometimes, when the book was exceptionally long or Fred's schedule of regular class work was heavier than usual, more than a week was spent on a book. The pupil reported the amount of independent reading done each week. Usually a few minutes were spent in discussing the content of a book. No attempt was made in connection with this type of reading to check rigidly on Fred's comprehension of the material. It was kept in mind that the purpose was to build up interests in recreative reading and it was felt that the aim would be defeated if the reading was made a task to be done. The *Kuder Book List* (*14*), a list of 500 titles related to the interest categories of the Kuder Record-Vocational, is a helpful guide for independent reading in this kind of remedial work.

As a rule, most of the time in the remedial period was spent on the McCall-Crabbs Test Lessons, Book IV. The plan of using the book was as follows: Five lessons were covered at each meeting. The regular three-minute limit was used for each lesson. After Fred had finished a lesson, he read his answers to the questions to the examiner, marked the ones that were wrong, and translated his raw score into a "G-Score" by means of a table. He then worked out correct answers for the questions he had answered incorrectly, and read aloud and answered the questions that he had failed to cover during the time limit. This oral work at the end of each lesson (except those lessons finished within the time limit) assured the thorough understanding of each lesson. It also gave opportunity for constant check on reversals of *b* and *d,* since the questions were of the four-response type (responses *a, b, c, d*), the pupil indicating his answer by reading the letter preceding the answer he thought was right.

The plan of using lessons that were timed stimulated the pupil to read at his maximum rate. He took much interest in his G-Scores and, with the aid of the teacher, kept a graph of the G-Scores from week to week.

The McCall-Crabbs Test Lessons were sometimes made the basis of informal vocabulary work. The remedial teacher soon found that Fred could nearly always work out the right answer for every question unless the material contained words unfamiliar to him. Occasionally the material was varied by using one of the volumes of *Real Life Stories* instead of the McCall-Crabbs lessons.

After each of the meetings with Fred, the remedial teacher wrote a brief summary of the work carried on during the period. If this entire record were included in the present report it would be needlessly long. The following excerpts illustrate the type of record made:

> *Friday, October 28.* Fred read five of the McCall-Crabbs Test Lessons. Rate slow; comprehension good. (A continuous record of these lessons is kept on another sheet.) He selected and read a story in *Real Life Stories.* His rate

was slow—about half a page per minute. He said that the story was interesting. His attitude was excellent.

*Wednesday, December 7.* Fred returned *The Prince and the Pauper* which he had finished. He had also read 275 pages in *Famous Frontiersmen.* He retained it to finish before next Wednesday. Fred is also going to read short stories for his literature class and will report the titles to me. He read McCall-Crabbs Test Lessons 11 and 12. An improvement in speed was evident. A tendency to confuse *b* and *d,* when these letters stand alone, which had been noted in preceding lessons, was observed again. When it was mentioned to him, he acknowledged the difficulty. I told him not to worry about it and that it would probably disappear with practice in reading. He read aloud the first chapter of Van Loon's *Ancient Man.* He had practically no difficulty with pronunciation and was able to give the thought orally quite well. Fred did the Gates Pronunciation Test without error. I asked him the meaning of several words and found only one that he didn't know. Fred spent the last part of the hour reading ahead in the book, *Famous Frontiersmen.*

*Wednesday, April 19.* As Fred was absent from school last Wednesday, this was his first meeting with me for two weeks. He returned Hawes' *Mutineer* which he had finished. He said that he found it rather dull at first, but interesting after he got into it. The reading during the period covered McCall-Crabbs lessons 63–67. The average G–Score was 7.5, the best record he has made thus far. Fred chose the *Story of Ab* to read during the next week.

*Progress of Treatment.* Fred and the remedial teacher spent a total of 30 class periods (including testing periods) on the work in reading. The pupil was interested in the reading and coöperated with the teacher in every way. Evidence of his interest is found in the amount of independent reading done during the year. The following is a list of books read:

Britt, *The Boys' Own Book of Frontiersmen*
DuPuy, *Uncle Sam, Detective*
Mark Twain, *The Prince and the Pauper*
Johnston, *Famous Frontiersmen*
Green, *Roy Andrews, Dragon Hunter*
Parker, *Book of Electricity*
Spivak, *Georgia Nigger* (selected independently)
Gaston, *Modern Lives*
Driggs, *The Adventures of Arnold Adair, American Ace*
Garland, *Boy Life on the Prairie*
Masefield, *Martin Hyde*
*Hoof and Claw*
Hawes, *Mutineer*
Waterloo, *Story of Ab*
*Lance of Kanana*
—— *Electricity for the Farm House*

Fred also read one of Thompson-Seton's books of animal life and several short stories, including some by Poe and one by Conan Doyle.

Near the end of the year the plan of having Fred choose his books from the library rather than from a reading list was adopted. His selections tended to be in the field of science. Although Fred's tastes in fiction are not yet very mature, his interests in nonfiction—especially scientific books—are quite mature. Fred's science teacher reports that he is far ahead of most of his classmates in his understanding of that field.

All 94 test lessons contained in the McCall-Crabbs Book IV were read during the year. Occasionally, this work was varied by selections from other material, but Fred showed a preference for reading in the McCall-Crabbs book because he could see his score in reading and could note his progress from week to week.

*Results of the Remedial Work.* Evidence of Fred's improvement in reading during the remedial period is of four kinds, which are as follows:

1. Gains in G–Score on McCall-Crabbs Test Lessons.
2. Improvement in scores on reading tests.
3. Reports of teachers.
4. Results of observation of the pupil.

*McCall-Crabbs G–Score.* The authors of the McCall-Crabbs Test Lessons have provided for changing raw scores directly into G–Scores or grade scores. That is, a G–Score of 5.0 on lesson 10 is equal to a G–Score of 5.0 on lesson 15 and every other lesson. Thus, the G–Scores are directly comparable. Some of the lessons do not seem to be very well standardized, but it is probable that if the G–Scores for several lessons are averaged, the errors appearing in standardizing various lessons will tend to cancel each other. At any rate, the scores offer a fairly satisfactory measure of reading ability in terms of grade norms.

Fred's record of G–Scores, with the scores for all the lessons given on any one date averaged, is shown graphically in Figure 5. The pupil's lowest score was 4.3 on October 28, the first time the test lessons were given, and the highest score was 8.0 on May 31, the date on which the test lessons were discontinued. This gain was equivalent to the progress that might normally be expected in 3.7 grades. A part of the improvement was doubtless due to familiarity with the type of lesson used in the McCall-Crabbs books and to better methods of attack on this kind of lesson. These factors do not, however, explain all the improvement. After a number of lessons of this type had been done by the pupil, one can reasonably assume that he had become thoroughly adjusted to the reading situation set up in the lessons and that familiarity with that kind of lesson would thenceforth cause little, if any, gain in score. Nevertheless, he continued to improve to the end of the training period. A genuine gain in reading ability is therefore indicated.

*Scores on Reading Tests.* Fred's progress in reading ability during the year is indicated by the scores on five reading tests shown in Table 8.

Improvement was made on every test. The larger gains were in comprehension, vocabulary, and oral reading. The gain in rate of reading was insignificant according to the

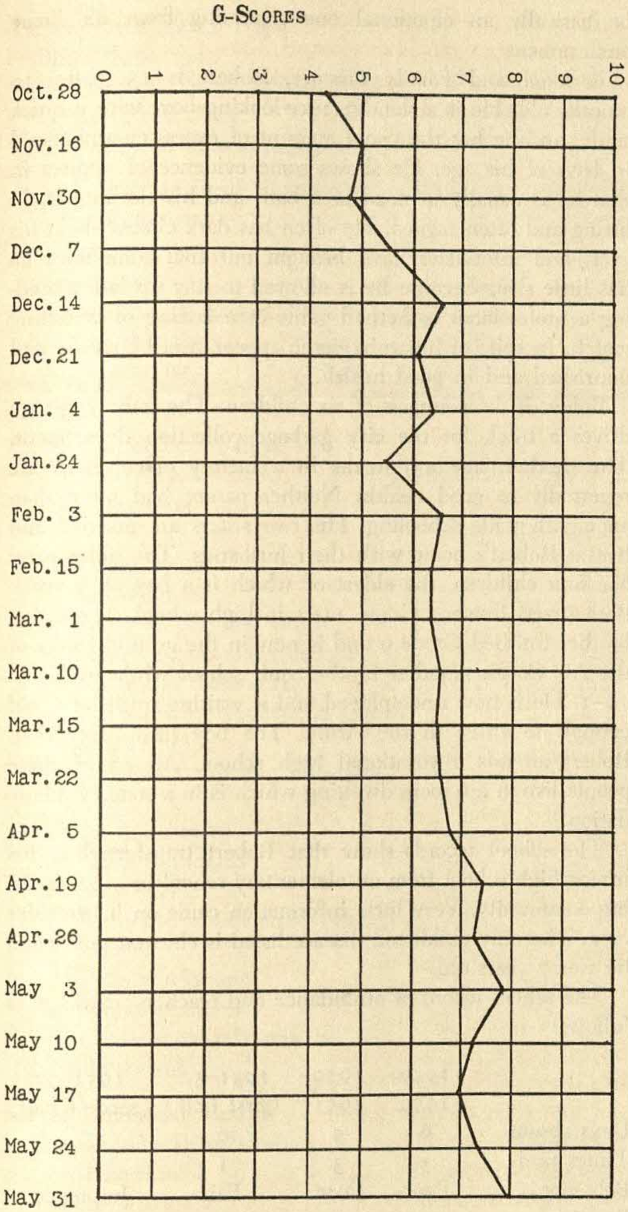



**FIGURE 5.**

results of the Monroe test and the Traxler test. The small gain on the Sangren-Woody test, in which rate of reading is very important, also suggests that Fred did not improve materially in speed of reading. In spite of the fact that the gain in rate was negligible, the remedial training was worth while because of the large growth in comprehension.

*Reports of Teachers.* The comments made by Fred's teachers in the regular reports at the end of the year do not show deficiencies in reading. They indicate that Fred's work was satisfactory except in his written papers, which showed marked deficiencies in spelling and handwriting. Apparently, Fred is not now markedly deficient in reading ability; if he were, the deficiency would be reflected in his class work.

TABLE 8. Improvement in Test Scores During Remedial Teaching

| Test | Before Remedial Training | After Remedial Training | Gain in Points | Grade Equivalent at End of Period of Teaching |
|---|---|---|---|---|
| Sangren-Woody | | | | |
| Reading | 85.4 | 87.2 | 1.8 | 8.3 |
| Thorndike-McCall | | | | |
| Reading Scale | 59.0 | 61.0 | 2.0 | 8.9 |
| Monroe Silent Reading | | | | |
| Rate | 86.0 | 89.0 | 3.0 | 10.0 |
| Comprehension | 30.0 | 34.0 | 4.0 | 12.7 |
| Gray Oral Reading | 37.5 | 46.0 | 8.5 | .... |
| Traxler Silent Reading | | | | |
| Rate | 24.0 | 24.0 | 0.0 | |
| Vocabulary | 21.0 | 29.0 | 8.0 | |
| Comprehension | 36.0 | 42.0 | 6.0 | |
| Total score | 81.0 | 95.0 | 14.0 | 10.0 |
| Average grade equivalent | .... | .... | .... | 9.6[a] |

[a] This rough index of the pupil's grade equivalent at the end of the period of training is simply an arithmetical average of the grade equivalents on the four different reading tests. In order to avoid overweighting of the Monroe Silent Reading Test in the composite, the grade equivalents for rate and comprehension on the Monroe test were first averaged, and this average was used along with the grade equivalents derived from the other three tests in computing the average.

A report made by the librarian on Fred's application in the library may be included in this section. She observed him for 20 minutes on November 22 and again for 20 minutes on May 8 and made a graphic record of her observations. Although the book Fred was reading when the second observation was made was harder to understand than the one he was reading when the first observation was taken, his second record was considerably better than the first one. The observation was not carried on long enough to provide a very reliable sampling of the pupil's study habits, but it may be concluded that the results offer some evidence of improvement in application during the year.

*Observations by Remedial Teacher.* The written comments made by the remedial teacher after each meeting with the pupil indicate that Fred showed slow, but consistent, growth in reading ability during the period. One of the most encouraging signs of better reading ability was that the tendency to experience reversals—in particular, the confusion of *b* and *d*—that had been noticeable during the fall semester had apparently disappeared by the end of his freshman year. This came about without the use of any of the special corrective devices that are sometimes employed in

these cases. It is not known at present, however, whether or not the pupil is permanently cured of the tendency.

*Summary and Recommendation.* Fred evidently made significant improvement in reading ability during a period of approximately eight months in which he met with the remedial teacher for one class period a week. His largest gains were in power of comprehension. He continued to be a slow reader, but nevertheless he was able to read fast enough to do the work of the ninth grade satisfactorily. He also developed an interest in reading which showed signs of continuing beyond the period of training. Of six objectives set up at the beginning of the teaching, five were reached. The one which was not accomplished dealt with increasing the rate of silent reading.

It appears that Fred is now approximately at the reading standard for the ninth grade, although he is below the median of his class in the high school. He plans to continue doing a large quantity of informal reading during the summer vacation. The remedial teacher should interview him early in the new fall semester in regard to progress and should utilize the opportunity provided by the interview to test his reading ability again. Unless marked loss in skill is found, further remedial instruction will be inadvisable, especially in view of the fact that his written English expression will probably need some special attention. The pupil is mature in his attitude, earnest in purpose, and appears to have reached the point in his development where he can guide himself in his reading.

### A Case of Behavior and Learning Difficulty

The next case study was made by a high school teacher who was a student in a graduate class in case studies. It illustrates the kind of case report frequently prepared in the normal course of the regular school activities.[8]

*Reason for the Study.* Robert has been in disciplinary and academic difficulty in the junior high school which he now attends. Two years ago, after entering Grade 7–1, his teachers felt that he was not prepared adequately for this grade level, and he was therefore placed back in Grade 5. He has come up through the fifth and sixth grades fairly satisfactorily, but he is now repeating 7-1b. Because of his constant demand for attention, he is a disturbing element in the classroom, and he has been sent frequently to the principal's office for disciplinary action. Further, in the light of the results of two tests of scholastic aptitude, it is felt that he has not been achieving at a level compatible with his ability.

*Tentative Hypothesis.* From information given in the school's records, from talks with his teachers, and from observations of Robert both in the classroom and in personal interviews, the case worker feels that Robert's problem may be basically an emotional one stemming from his home environment.

*Personal and Family History.* Robert is 13 years, 10 months old. He is a slender, nice-looking boy, with a quick smile, and he has the usual amount of excess energy found in boys of his age. He shows some evidence of neglect in that he is usually in need of a bath and his clothing is ill-fitting and often ragged. He often has dark circles about his eyes, and interviews have brought out that sometimes he has little sleep because he is allowed to stay up late attending a professional basketball game or a boxing or wrestling match. In spite of his unhygienic appearance, he seems well nourished and in good health.

Robert is the youngest of six children. The father, age 49, drives a truck for the city garbage collection department. The mother, age 43, works in a factory office. Both are reportedly in good health. Neither parent had more than an eighth-grade schooling. His two sisters are married and live at Robert's home with their husbands. The older sister has four children, the eldest of which is a boy of 5 years. Both sisters finished Grade 11–1 in high school. The eldest brother finished Grade 9 and is now in the ground forces of the Air Corps. Another brother quit school while in Grade 10–1. He is now unemployed and is waiting until he is old enough to enlist in the Army. The boy next older than Robert attends a vocational high school. All 13 of these people live in a 6-room dwelling which is in a state of dilapidation.

The school records show that Robert transferred to his junior high school from an elementary school in a neighboring community. Very little information came on his transfer card. The only childhood disease listed is chicken pox when he was 7 years old.

The school record of attendance and teachers' marks is as follows:

| | *1949–1950* | *1950–1951* | *1951–52 (first half)* | *1951–52 (second half)* |
|---|---|---|---|---|
| Days absent | 6 | 5 | 0 | 3/2 |
| Times tardy | 3 | 3 | 1 | 4 |
| Behavior | Poor | Poor | Fair | Improved |
| Reading | 70 | 70 | — | — |
| Writing | 75 | 75 | — | — |
| Spelling | 85 | 50 | 85 | 80 |
| Mathematics | 60 | 65 | 80 | 78 |
| History and social studies | 78 | 65 | 80 | 85 |
| Geography | 50 | 50 | — | — |
| Shop | 75 | 70 | — | — |
| Drawing | — | — | 85 | — |
| Music | — | — | 85 | 85 |
| General science | — | — | 50[a] | 65 |
| English | 60 | 50 | 78 | 75 |

[a] Robert obtained a grade of 95% on the examination, but failure to hand in a notebook resulted in a failing grade.

The following results were obtained from objective tests administered to Robert:

[8] Based on a report written by Basil B. Emerson, who is now Director, Pupil Personnel Services, Nyack Public Schools, Nyack, N.Y., and used with his permission. Report written in connection with another school system.

| General Intelligence Tests: | | | IQ |
|---|---|---|---|
| Binet, June 1949 | | | 100 |
| Otis Group Test of Mental Ability, November 1950 | | | 101 |
| Calif. Test of Mental Maturity, April 1951 | | | 100 |

| New York State Reading Progress Tests (%ile for the grade) | *October '50* | *October '51* | *April '52* |
|---|---|---|---|
| Detailed understanding | 60%ile | 78%ile | |
| General thought | 21%ile | 21%ile | |
| Word meaning | 42%ile | 32%ile | |
| Grade level | | 6.1 | 6.9 |

| Calif. Test of Personality, Elementary, Form A, Grades 4–9 | *December '51* | *May '52* |
|---|---|---|
| | %iles | %iles |
| I. Self-adjustment | | |
| a. Self-reliance | 20 | 70 |
| b. Sense of personal worth | 25 | 35 |
| c. Sense of personal freedom | 1 | 45 |
| d. Feeling of belonging | 15 | 40 |
| e. Withdrawing tendencies (freedom from) | 30 | 60 |
| f. Nervous symptoms (freedom from) | 30 | 95 |
| II. Social adjustment | 10 | 45 |
| a. Social standards | 1 | 60 |
| b. Social skills | 15 | 45 |
| c. Antisocial tendencies (freedom from) | 15 | 20 |
| d. Family relations | 5 | 60 |
| e. School relations | 10 | 15 |
| f. Community relations | 20 | 55 |
| Total adjustment | 15 | 55 |

| Kuder Preference Record (%iles for male adults) | *March '52* |
|---|---|
| Mechanical | 34 |
| Computational | 75 |
| Scientific | 21 |
| Persuasive | 56 |
| Artistic | 66 |
| Literary | 83 |
| Musical | 92 |
| Social Service | 29 |
| Clerical | 46 |

MacQuarrie Test of Mechanical Ability, May 1952, 50%ile

The intelligence and reading test results indicate that Robert is of average mental ability, but that he is somewhat low in reading achievement. The results of the other tests are discussed later in this report.

*Diagnosis and Plan of Treatment.* The difficulty in this case seems to be one of emotional adjustment. The boy appears to feel that he is not recognized as he should be, either at home or at school. Apparently another individual, probably the sister's child, has moved into the limelight in the home situation. To compensate for being pushed aside, Robert has resorted to more overt actions to regain his former position. Some of his teachers do not understand the problem; consequently, Robert is thwarted in his attempts at school. As a result of this frustration, he has become rebellious, especially toward those who do not try to understand him.

The plan of treatment logically follows three avenues: first, an attempt to improve the home relationships; secondly, an attempt to bring about better understanding of Robert by his teachers; and, lastly, an attempt to improve Robert's attitudes toward school and his family.

*Treatment and Check of Diagnosis.* The last part of the plan was undertaken first. Weekly interviews of from 20 to 45 minutes were held. It was extremely difficult for Robert to "stay put" during the initial talks with him. No coercion was used upon him to reveal anything he did not wish to nor was he forced to stay in the interview. He willingly took the objective tests, but volunteered little information about himself or his family. When at the end of one interview a home visit was mentioned, he protested so vehemently that this part of the plan was postponed in order to preserve the rapport that had been established with him.

It was discovered that Robert was extremely fond of sports and that he joined the school "Y" and "Boys' Club" for this reason. Robert plans to go to high school and later to become a mechanic. In discussing his school subjects and his teachers, Robert said that he liked mathematics and physical education but disliked English and science. Such remarks as "Most teachers have me do things I'm not interested in"; "There's nothing to do at home"; "I don't like to stay in when I'm home"; and "Kids bother me at home" reveal something of his problem and tend to support the original diagnosis.

The individual counseling consisted of explanations of the processes of growth, how attitudes change as we grow, and the necessity for tolerance of other people's opinions and regard for their rights. The advantages of high school were discussed, and the greater variety of sports and athletics was stressed. The last few interviews were more fruitful; he contributed more to the conversation and seemed less anxious to leave.

The second part of the plan was to relieve some of Robert's restraints in school by talking to his teachers. Most of them were concerned about him, and had a good grasp of his problem. His English teacher was very sympathetic, even though Robert showed a dislike for this subject. She said, "Robert is very fidgety in class, but he is not really a disturbing child. I believe he is not supervised enough at home. He may be upset by home environment." His mathematics teacher found no fault with him at all, saying, "His attitude in my class is excellent; he works and does well in mathematics." The science instructor, however, had an unfavorable view of Robert. She felt that his attitude in class was poor and that he could not be trusted. The comment of the physical education instructor was "Robert has lots of energy and enthusiasm for sports. He is usually the leader

of his group." Most of those interviewed, including the janitors, felt that Robert was a "likable kid."

*Evaluation of Treatment.* Since the case work with Robert had not been completed when this report was written, it was not expected that the treatment provided thus far would be very effective. Both the principal and the guidance counselor, however, separately stated that Robert's behavior had improved and that he was doing better work in school. The counselor said, "Robert hasn't been sent to the office for disciplinary action this term, although he has had detention a few times."

It will be observed that there was an improvement in Robert's grades this term and that his reading grade level was raised from 6.1 to 6.9. The most striking change is seen in the test results on the California Test of Personality, Elementary Form A, Grades 4–9. Granted that the results of a paper-and-pencil personality test must be interpreted with caution, these results do indicate considerable improvement in Robert's personality pattern. When interpreted in the light of the observations of this case worker and of Robert's teachers, the results seem fairly valid and are, indeed, encouraging.

The Kuder Preference Record was given more for the purpose of gaining rapport with Robert than for determining any particular interests. The results of the Kuder inventory may be questionable for a boy of this age and ability.

The results of the MacQuarrie Test of Mechanical Ability suggest that while Robert is average for his grade level, he probably has less mechanical ability than would be required for one who is going into this field as an occupation. It would be unwise, however, to draw any definite conclusion from just one paper-and-pencil test of this kind.

In evaluating the treatment, it should be pointed out that the fact that Robert had someone who was taking a personal interest in him may alone have been of more value than the actual procedures used. Good rapport was eventually established, and the data available indicate a fair measure of success.

*Follow-up.* Obviously, it would be incorrect to say that Robert has made the desired adjustment and that no further special attention is needed. It would also be grossly unfair to the boy to drop his problem now. Three steps in follow-up are planned: (1) to obtain the results of his final work and grades in Grade 7–1b for this term and to discuss these with his teachers; (2) to suggest that the faculty study his problem next school term by the case-conference method and to plan a common program of help for him; and (3) to visit Robert's parents and to attempt to help them understand his need for more attention, affection, supervision, and personal care.

## POINTS TO BE OBSERVED IN MAKING A CASE STUDY

### PLANNING THE CASE STUDY

The following points are offered as suggestions for persons who are contemplating the making of a case study for the first time:

1. Select a case in which you are really interested both from the standpoint of the nature of the case and the personality of the individual concerned.

2. If possible, choose a pupil from one of your classes who, you feel, needs attention and help and who will probably coöperate well with you.

3. When considering various pupils, give some thought to the shy, quiet, retiring pupils. Pupils of this type are sometimes more suitable subjects for case study than pupils whose difficulties or behavior cause them to be noticed.

4. Plan only as much as you feel that you can accomplish. If you contemplate a thorough case study, including treatment, it will probably be best to confine your study during the first year to one pupil. If you prefer to make brief case summaries, you can perhaps do several or even summaries for an entire class if it is small.

### COLLECTING THE DATA

Some of the main points with respect to collecting the data were set forth earlier in this chapter. An additional point is that in interviewing the pupil and in testing him to get further data about his difficulties, care should be used not to place him on the defensive. He should not be made to feel that he is a culprit or that he is in any way an extreme deviate from his fellow pupils. The meeting ground of the case investigator and the subject should be one of sharing in the solution of the pupil's problems. If the case investigator can enlist the interest of the pupil and can get him to take the initiative from the beginning, the prognosis for the successful solution of the pupil's problems is excellent.

### WRITING UP THE CASE

As already indicated, there is no one pattern for writing up the case, but certain general principles should probably be observed.

1. Write objectively, simply, and with directness. Although you should be vitally interested in the case, your report of it should not reflect personal bias. The description of the case should be as objective and the interpretation should be as impersonal as possible. This does not mean that you should avoid interpretation and inference, but it does mean that you should distinguish meticulously between the facts you have discovered and the interpretation or diagnosis based on these facts.

2. In the report of the case, use both general statements and specific illustrations. General statements about intelligence, achievement, and personality are much more convincing if they are supported with some definite data.

3. Eliminate irrelevant items; confine the case report to a few typewritten pages.

## APPLYING AND EVALUATING TREATMENT

Persons who are inexperienced in making case studies often find that the study moves along smoothly until they reach the stage of applying treatment, but that this stage presents problems which seen baffling. The observation of a few suggestions may help to clarify these problems.

1. A case investigator should not attempt to apply treatment for difficulties that are entirely outside his experience. If he does make such an attempt, it is probable that he will become involved in an embarrassing situation and that he may do the pupil more harm than good. If the problem is one of learning in his own or a related field, he should be able to handle it. If the problem is one of reading or study difficulty, as many cases are, he should be able to offer the pupil valuable help in reading and studying the content of his own special field and perhaps of other fields. The case investigator can also handle many problems that are volitional, which are caused by lack of interest, or which are of a minor behavior character. If the case involves learning adjustments that are entirely foreign to his experience, or if it includes obscure personality disorders, the investigator should frankly recognize his inability to meet the situation and should conclude his report with a recommendation for referral.

2. During the period of treatment, the case investigator should keep a careful journal record of the progress of treatment. He should not depend upon his memory but should write up each interview with the pupil and each significant observation just as soon as possible. Not all of what is written in the journal will find its way into the case report, but a complete journal record is of inestimable help in making a final report at the end of the period of treatment.

3. If the case is the kind that lends itself to measurement (for example, if it involves achievement in a certain skill or school subject), comparable tests should be administered at the beginning and the end of the treatment. Such tests will take the evaluation of the treatment out of the realm of speculation and will sometimes reveal significant progress under conditions where no conclusions about growth could be made on the basis of observation alone.

4. After a case has been released from treatment, it should be followed up and the individual kept under observation for a few months to make sure that a relapse does not take place. This is especially important in cases involving skills such as reading, spelling, and arithmetic. Some pupils who make marked gains on tests during a period of teaching will tend to return to their old habits later unless they are carefully supervised.

## DISTRIBUTION OF CASE STUDIES

If each member of a school faculty should undertake one case study, it may be anticipated that the studies will naturally represent a wide sampling of types of cases. Nevertheless, it will probably be advisable for the faculty to spend some time together in planning the studies to make sure that various kinds are represented. Learning cases in different fields of study will probably account for the largest number of studies. It is to be hoped, however, that some persons will have the temerity to undertake studies of behavior problem cases. Most of the case studies will no doubt be concerned with problem pupils, but a few of them should certainly be directed toward understanding and planning adjustments for very superior pupils. Finally, it will be helpful if some members of the staff will study average pupils in order to investigate the value of case reports for the great middle group in the school population.

It is also possible to carry on a case study as a group project, with each of several members of the school staff contributing different kinds of information about the individual. This sort of procedure has been well described by Fisher in the following statement:[9]

> The details employed in using this procedure at the school are as follows: A child was selected who had been referred to the psychologist as a behavior problem. Each teacher who was involved was assigned a specific duty for the conference. One teacher reported on the child's home conditions; his classroom teacher reported on his classroom behavior; his school history, from the time of entrance to the present, was described; the school nurse presented his medical history; and the psychologist reported his findings. At the conclusion, the available information was summarized, and the faculty joined in open discussion which culminated in the proposal and the adoption of a plan of action.
>
> It is felt that the method helped everyone who came into contact with the child to see the many-sided picture which is responsible for his present behavior.

## VALUE OF CASE STUDIES

Several schools which participated in the Public School Demonstration Project[10] of the Educational Records Bureau experimented extensively with a plan of hav-

[9] Bernard Fisher, "A Psychologist's Evaluation of Teachers' Reports and Suggestions for Their Improvement," *Educational Administration and Supervision,* XXXVIII (March 1952), 175–179.

[10] See *Guidance in Public Secondary Schools,* Chapter XII. Educational Records Bulletin 28. New York: Educational Records Bureau, 1939.

ing case studies carried on and written up by classroom teachers. Their experience indicated that the following values resulted:

1. A considerable number of the pupils in the school who were most seriously in need of careful individual attention and guidance were subjects of detailed study. Not every case study brought about improvement, but it is believed that the net result constituted a real gain.

2. Each case investigator acquired a better understanding of cumulative records and a greater insight into the relationship of these records to the immediate needs of the pupils. It seems probable that the teachers profited as much from the case studies as did the pupils.

3. The case studies formed a basis for group discussions between the different teachers of each pupil. Thus coöperative work between teachers in different departments, and between teachers and counselors, was fostered.

The preparation of case studies by classroom teachers is relatively a new educational procedure in many schools, and there is need for further investigation of what can be done in this field. It is highly desirable for schools that are experimenting with case studies to have them presented in written form, for it is through such reports that other schools may be shown how cumulative histories of aptitude, achievement, and personality factors can be made to contribute to the classroom teacher's understanding of individual pupils and to the individualization of instruction. Thus, an accumulation of written case studies may constitute an important contribution to guidance procedures at all levels of the school.

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CHAPTER XVI

# The Role of the Teacher in Guidance

The relationship of the teacher to the guidance program may be considered in two ways. First, there is the obvious connection with guidance which teachers have in school systems where all instructors, or certain selected ones, are designated as guidance officers, each being responsible for a group of perhaps 20 or 30 pupils. Second, there is the connection with guidance which each teacher has in her regular classroom and extracurriculum activities regardless of the system of guidance followed in the school. This chapter will be concerned mainly with the second of these relationships—that which exists in the ordinary daily contacts between teacher and pupils.

It is common knowledge that the average public high school teacher carries a heavy load. He or she must teach from 100 to 200 or more pupils distributed through four, five, or even six classes; participate in the extracurriculum program of the school; prepare lesson plans; read and correct papers; give special help to slow pupils; handle minor behavior problems; make out reports; and often take an important part in the out-of-school life of the community. If participation in a guidance program seems to be just another routine responsibility added to an already heavy load, enthusiasm for the program will naturally be lacking among the teaching staff. A teacher can be expected to contribute whole-heartedly to such a program if the relationship of guidance to the job already being done is clearly understood. It is hoped that the following list of questions and answers will help to clarify this relationship.

I. Is It Desirable to Combine the Functions of Guidance and the Functions of Teaching in the Same Person? Should not Guidance Procedures Be Carried on by Specially Trained Persons?

The answer is that these functions are already combined in the same person. All teachers carry on guidance and will continue inevitably to do so. The question is not whether teachers shall engage in guidance, but whether guidance shall be unplanned and incidental or planned and purposeful. It is true that the guidance program should be under the direction of one who has specialized in this field and that a staff of specially trained counselors is needed if the program is to reach its greatest effectiveness, but these specialists can succeed only if they have the full and active coöperation of the teachers. In schools that have only one guidance officer, who is frequently on a part-time basis, most of the actual counseling must be done by the teaching staff, because it is physically impossible for one person to keep in close contact with several hundred pupils. Although the principal and the assistant principals often assume much of the work of counseling, it is probable that the most effective guidance can be done when administration and counseling are divorced. The best guidance relationship is obtained when pupil and counselor meet as nearly as possible on an equal footing, with the relationship completely freed of all implications of authority or coercion. Teachers, because of their closer contacts with the pupils, are frequently in a better position to provide the conditions needed for effective counseling than are other members of the staff.

II. If I Try to Do Guidance Work When My Schedule Is Already Full, Will not This Extra Load Reduce My Teaching Efficiency?

It is true that learning to use test results and cumulative records and studying guidance philosophy and the application of guidance techniques do require a considerable amount of a teacher's time at first, and it may

call for some reduction in other types of service in the beginning; but in the end it should greatly increase teaching efficiency, for it will lead the teacher to become better acquainted with the abilities and needs of the different pupils and will help the teacher see them as individuals rather than merely as members of a group.

The studying of the philosophy and methodology of guidance is in a sense an extra, although necessary, load for the teacher. The process of guidance itself is not, however, an extra load, for it is work that the teacher already engages in, and it has for its ultimate goal the same objectives that good teaching has—the maximum adjustment and growth possible for every individual. Under the normal conditions of teaching in a secondary school there can be no sharp dividing line between instruction and guidance. These two processes are inextricably related in every classroom and in every extracurriculum activity in which both pupils and teachers engage.

### III. What Can I Do About the Guidance of the Pupils in My Classes, Whom I See in Groups for Forty or Fifty Minutes Each Day, Most of Whom I Did not Even Know by Name Before They Entered the Class, and About Whom I Know Little or Nothing?

This is a live question, presenting a situation which is typical in almost all large public high schools. One might answer the question by asking another—What can you do about *teaching* under such conditions? Even if the teacher were interested only in the formal presentation of subject matter, an adequate job could not be done until he or she had ascertained whether or not the background of the pupils was sufficient to make the class presentations comprehensible. It is obvious that the first thing to be done in meeting the situation for either instructional or guidance purposes is to *study the pupils.* It is here that some of the most important instruments in guidance will be found indispensable. If a comprehensive testing program has been carried on, the test scores will provide information about the present aptitude and achievement of the pupils. If cumulative records have been kept in the school, a variety of information about home background, health, interests, extracurriculum activities, and growth in achievement, as well as present status of achievement, will be available in compact and readable form. Lacking standardized test scores and cumulative records, the teacher will find the problem of becoming acquainted with the needs of the pupils much more difficult and its solution will depend on the teacher's ingenuity in devising her own methods for getting the necessary information.

Much of the guidance that teachers do is necessarily through group procedures rather than through individual conferences. Alert teachers who have studied their pupils will see opportunities to carry on group guidance in connection with their regular teaching. For example, most pupils need guidance in study habits. The nature of study varies so much from subject to subject that probably the most effective guidance in study habits will be carried on in connection with the actual classwork. Time spent on guidance of this type in the classroom is certainly a legitimate function of instruction.

### IV. What Can I Do to Help Make the Testing Program of the School Effective?

Teachers can make a very important contribution to the testing program of the school through critically evaluating the achievement tests in the light of the objectives and content of their courses. Such an evaluation calls for more than general impressions. A detailed checking of each item in the test should be made, with notations indicating whether or not the test question samples something the school is trying to do. Such analyses should be most helpful in interpreting the results of the tests. No test can be expected to fit a particular curriculum exactly, but the correspondence should be fairly close.

The teachers can also aid with the testing program by sending information to the principal, which may be passed along to the publishers, about questions which experience indicates are not valid.[1] The actual experience of teachers in the field is one of the best aids in the revision and improvement of tests.

Still another way in which teachers can assist in securing valid results with tests is to see to it that the new pupils in their classes who have not previously had experience in taking standardized tests are made acquainted with the general nature of objective tests before the tests are administered. A few minutes spent in making an explanation and displaying sample questions to a group of inexperienced pupils may place them in a much better position to show their real ability when the tests are given. Needless to say, the actual forms of the tests which are to be employed in the testing program should not be used for this purpose. It is preferable to use materials such as a practice sheet issued by the Educational Testing Service or a set of practice exercises devised by the Educational Records Bureau.

A fourth contribution that the teacher can make to the guidance program is to explain the results to the pupils in either group or individual discussions. It is also legitimate, after the tests have been given, to use some types of scored test papers as teaching devices, but not much time should be spent in this way and care should

[1] For example, this is a common practice in connection with the spring achievement testing program of the Educational Records Bureau.

be used to avoid allowing the tests to determine the content of the courses.

V. What Use Can I Make of Cumulative Records and How Can I Contribute to the Records?

The teacher can use cumulative records in getting the essential facts about the ability and achievement of the class at the beginning of the term, and thus within a few days after the course has started (or even before it begins) information will be available that could not be collected in less than several weeks by the usual procedure of gradually becoming acquainted with the pupils through day-to-day contacts. Thus from the beginning the teacher can plan for group activities with some assurance and can also take into account the special needs of individual pupils.

The cumulative records will be a constant source of information for the teacher in connection with individual conferences and special help for the various pupils. Each card should provide an up-to-date case history in summary form. A teacher cannot be expected to carry in mind the essential facts about each pupil, but if the school has a cumulative record system the facts should be looked up when they are needed.

An important part of the cumulative record has to do with social adjustment, personality, mental and emotional factors, activities and interests, accomplishments, experiences, and plans. Tests in these fields are still highly experimental and the main reliance for the filling out of this part of the card must be placed upon observations of persons who have contacts with the pupil. The classroom teachers of each student will have the best opportunity to contribute to this part of the card. Teachers should form the habit of noting down brief anecdotal records about their pupils and of forwarding them to the proper office for entering in condensed form on the pupil's cumulative record. Over a period of years, such uncontrolled observations, collected from a large number of teachers and assembled in the same part of the record card are extremely revealing and provide invaluable data for future guidance.

VI. How Can I Make Maximum Use of Cumulative Test Histories in Diagnosing the Learning Difficulties and Improving the Instruction of My Pupils?

The point which will bear repetition is that the conducting of testing programs and the keeping of cumulative records are only means to an end. As stressed in Chapter XIII, these procedures will be valuable in direct proportion to the degree to which the records are used constructively in the improvement of instruction and guidance. After every testing program, the scores and percentile ratings of each pupil should be studied in order to find his points of strength and weakness, and in the case of subjects that are continuous over a period of several years, the pupil's growth since the last test was taken should be noted.

One plan for doing this is to have the guidance officer or psychologist make a survey of the test scores of the entire school in order to find the pupils whose grade scores are low and the subjects in which they are deficient, and to refer the cases to the proper teachers for more careful analysis. Pupils who are very slow should be scheduled for special help.

The use of test results in instruction has three distinct aspects, as follows: (1) the improvement of instruction in the regular curriculum of the school; (2) the planning of corrective and remedial work for retarded pupils; and (3) the provision of special programs for superior pupils. In connection with the first aspect, it has been found that a tabulation of the percentage of correct responses made by a class on each item of a standardized test is very useful in helping a teacher see those points that need greater emphasis in instruction. This procedure is to be recommended if it is kept in mind that the purpose is to discover the areas in which groups of children are strong or weak, and then to decide what should be done about the situation. Care should be used to avoid making the specific test items themselves objectives of instruction. Tests are at best samplings of basic skills, information, and understanding, and they should not be permitted to determine the curriculum of the school. The evaluation of responses to particular items and even to whole sections of the test should be in terms of the teacher's objectives for the particular course covered by the test. The fact that the pupils may make low scores on certain parts of the test may not mean that the teacher should give special attention to the matters covered by those parts. It may mean only that the objectives in that particular school are different in some respects from the objectives of the test makers. Nevertheless, the tabulation and study of quantitative data concerning the success of the pupils on the different items in the various tests used is a procedure that some schools are finding very helpful in reappraising and improving their courses. The item-counter unit on the International Test-Scoring Machine is a distinct aid to this kind of use of test results, as far as machine-scored tests are concerned.

At the beginning of the year each teacher can profitably spend several hours studying the test histories of the pupils in her class and noting at least the following points: (1) the general level of the academic aptitude and achievement of each pupil in relation to the basic criterion group and to the members of his own class; (2) the achievement of the pupils in the teacher's special field as compared with their achievement in other fields;

(3) the achievement of the pupils in the different parts of the test covering the teacher's special field (if this information is available); and (4) the probable readiness of the class as a whole to proceed with the course without taking preliminary preparatory steps.

In the planning of remedial and corrective work in connection with a testing program, four steps are ordinarily required of a teacher: (1) a survey of the scores on each test to select the pupils who are low; (2) the diagnosis of the difficulties of the pupil with low scores—a step which may call for the administration of additional diagnostic tests; (3) the planning of corrective teaching either in regular classes or in groups meeting at special times; and (4) the assignment of pupils to these special help groups for the duration of their deficiency. An additional step may also be needed—the provision of individual instruction for pupils who are too handicapped to profit by group instruction, although extensive individual instruction is seldom practicable in a remedial program conducted in public schools, because of the heavy regular teaching load that each instructor carries.

Many studies have been made of diagnostic and remedial work in connection with the basic skills of reading, arithmetic, language usage, spelling, and handwriting, and the more effective methods are fairly well established.[2] In most of the high school subjects, however, the use of test results in analyzing difficulties and in planning special help is still a pioneer field. One of the most significant contributions that could be made by teachers in public schools would be to set up and validate some techniques for doing this type of work.

Much emphasis should be placed on the third aspect of the use of test results—the provision of special programs for superior pupils. Although much theorizing has been done by educators in recent years about the desirability of providing for pupils with exceptional ability, the carrying of these ideas into action is still largely neglected by most schools. Consequently even pupils whose test results at the time of entrance to high school indicate that they are above the average for high school graduates in English usage, acquaintance with literature, understanding of the world of science, or other aspects of the work of the secondary school, are usually put through the same routine as their less gifted classmates. If here and there throughout the country, enlightened teachers would, with the consent of their high school principals, courageously break with tradition to the extent of releasing a few of their outstanding pupils from a portion of the regular work of their classes so that they would be free to carry on individual study under guidance, and would keep cumulative records of the progress of these pupils, it is believed that this example would have marked effect in freeing the superior pupils in the schools of the United States from useless and deadening routine.

[2] For further information on this point see *The Use of Test Results in Diagnosis and Instruction in the Tool Subjects.* Educational Records Bulletin 18, 2d ed., pp. 17–35. New York: Educational Records Bureau, 1949. Pp. vi + 82.

### VII. How Can I Help My Pupils to Become Better Adjusted to Their In-School and Out-of-School Environment?

This question is directed toward the most vital part of the guidance program. The contributions that a teacher can make to adjustment are innumerable. When it is discovered that a pupil is poorly adjusted, the general rule is to assemble the facts, analyze them, form a tentative hypothesis about the nature of the difficulty, plan treatment, apply it, observe the effect, and revise treatment as needed until the difficulty appears to have been removed. The teacher's most obvious relation to adjustment of pupils is in learning situations. If the pupil's failure is in the teacher's special field, the study of the cumulative record should help the teacher to diagnose the failure, to prescribe and administer treatment, and to effect a cure. If the failure to adjust is due to difficulty with a related field (for example, inability to write up science experiments because of English deficiency) the facts can be marshaled and reported to the proper department. Teachers have long coöperated in adjustment matters of this sort.

Another type of adjustment problem to which teachers can and usually do contribute is the type sometimes known as the "problem of inconvenience." Problems of inconvenience include the minor behavior difficulties that temporarily upset the routine of a classroom. Such problems, being overt in nature, usually do not indicate serious maladjustment on the part of the pupils who cause them, but teachers are ordinarily anxious to help work out adjustments because these matters are so annoying to them. The cumulative record—particularly the less objective part of it—may furnish valuable leads concerning the pupil's behavior and possible ways of modifying it.

All teachers know that there are many matters of personal and social adjustment in which they may aid pupils who seek their advice. Teachers have always helped with this kind of adjustment, but they should remember that in all such cases, they can do a better job if they will utilize the information that can be obtained from complete and carefully kept records.

Much more serious problems of pupil adjustment are likely to be deeply hidden and may escape observation altogether, unless teachers are alert for them. The shy, introverted, imaginative pupil may be more seriously maladjusted than the worst trouble-maker in the class. Teach-

ers who have not had courses dealing with psychological and psychiatric problems will be much more competent to assist with the more obscure and difficult problems of adjustment if they will become acquainted with the writings of leaders in these fields, or with recent textbooks and studies dealing with various aspects of child and adolescent psychology. Teachers may thus improve their ability to discover individuals needing guidance in mental hygiene, although they should be careful not to arrive at hasty conclusions about the nature of the difficulties, for psychiatric symptoms usually are not overtly related to their cause but are secondary symptoms developed as a healing process. These symptoms should be recognized and reported, but the teacher will seldom, if ever, be prepared to provide adequate interpretation or treatment for them.

Although the adjustive aspects of guidance do have, in some instances, obscure and technical ramifications that call for the assistance of experts, the greater part of the work of guidance is neither mysterious nor highly technical. Good teachers have always been guidance officers, as well as instructors, and they always will be. The philosophy and techniques of a guidance program are for the most part simply a means of helping the school staff do better what it would, by virtue of necessity, attempt to do anyway.

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CHAPTER XVII

# *Follow-up of Students and School Leavers*

## ASPECTS OF A FOLLOW-UP PROGRAM

THERE ARE FOUR DISTINGUISHABLE ASPECTS OF follow-up work in guidance. In the first place, there is the incidental follow-up of pupils which counselors and teachers carry on as a part of their normal activities in the school. Counselors frequently follow up interviews with individual pupils to note the effect of advice, or to gather additional information, or to assist the pupil further with his problems of adjustment. Teachers follow up pupils who have had special help with learning problems in order to note progress and forestall recurrence of the difficulties. Individual cumulative record cards are prepared as one phase of the guidance program, and these records may be regarded as a systematic follow-up procedure applied to all pupils—superior, average, and slow. No school could function as a unit without carrying on a considerable number of follow-up activities. Abandonment of these activities would lead to a thoroughly chaotic situation.

A second type of follow-up work is to be found in connection with individual pupils who have served as bases of case studies or who have received intensive remedial help in certain fields. It would be unwise to carry on a detailed case study or to provide remedial teaching for a pupil during a period of a few weeks and then drop the case. Nearly all psychological or psychiatric work in education presupposes that the case of the individual pupil will be followed up over a period of at least a year after the treatment has been discontinued in order to evaluate the results of the work and to note whether further progress is being made, but unfortunately in the busy environment of the school, where dozens of pupils constantly need special attention, this important phase of case-study and remedial work is too often neglected.

A third aspect of follow-up work in guidance is to be found where schools have evolved a systematic procedure for following up pupils from one unit of the school to the next higher one. For instance, a sixth-grade teacher may follow up each of her pupils when they advance to the junior high school, or a junior high school counselor may follow up the pupils in his advisory group throughout the three grades of the senior high school. An illustration of the latter type of provision is furnished by the Providence Public Schools, where the seventh-grade counselors make one-year follow-up studies in co-operation with counselors in Grade 10; eighth-grade counselors carry on two-year follow-up studies in conjunction with the counselors in Grade 11, and counselors at the ninth-grade level conduct three-year follow-up studies jointly with the twelfth-grade counselors. The Providence plan was explained in detail by Allen (3:166–176).

The fourth aspect of follow-up work is the one toward which attention especially needs to be directed because for the most part guidance programs leave much to be desired as far as this phase of the school program is concerned. This aspect of guidance has to do with the follow-up of graduates and other school leavers. Its importance in the development of a guidance program which actually functions in the lives of the individual young people can hardly be overemphasized. One may well question whether a school has discharged its full guidance responsibility if it gives a pupil careful attention while he is in school but abruptly terminates its interest in him when he is graduated. Rather, it would seem that the school should help him get adjusted to his postschool environment and that the guidance activities should be "tapered off" gradually.

The population included in a thoroughgoing follow-up plan should represent all kinds of students the school has served. As Eckert has said, "Studies based on graduates alone neglect the very persons from whom the faculty stands most to learn—the pupils who dropped out because of serious financial difficulties, inadequate course offerings, or lack of counsel on personal problems" (17: 107).

The last aspect of follow-up work—the one having to do with graduates and school leavers—is the main concern of this chapter. According to Troyer and Pace, the techniques of this kind of follow-up study have been of two main types. Such studies have dealt with the activities, behavior, or practices of the individuals included in the study or they have sought to find out the opinion of the respondents about the value of their previous educational experiences (76). In a review of 18 follow-up studies, however, Lorenzen (44) found that only six reported any investigation of opinion. Lorenzen stated that much of the research on follow-up studies is poorly reported, and anyone who carefully reads the literature in this field will probably agree with this statement. It seems advisable for any school which intends to undertake follow-up work to give careful consideration to the purposes, nature, procedures, and desirable characteristics of a follow-up plan.

## PURPOSES AND NATURE OF FOLLOW-UP OF SCHOOL LEAVERS

Young people who leave school either by graduation or by dropping out are followed up for one or more of three main purposes. First, there is the altruistic desire to help the individual with problems of vocational, educational, and social adjustment after he goes from the school and while he is getting himself established elsewhere. As a rule, more attention is given to vocational adjustment than to the other types, although not infrequently adjustment to a vocation depends in part upon the successful resolution of personal factors in the individual's make-up.

A second purpose of follow-up studies is to gather data for use in evaluating the instructional and guidance programs of the local school. This is an extremely important purpose. For instance, Patterson and Fotiu (55) followed up 155 cases to determine effectiveness of counseling by the Highland Park, Michigan, Guidance Center and concluded that advisement was generally "successful in assisting students in selecting educational or vocational programs which can be pursued by them with satisfactory progress." Likewise, Oppenheimer (52) reported a ten-year follow-up of the class of 1940 of the Woodrow Wilson High School, Washington, D.C.

The chief criterion of the value of a guidance program is its influence on the postschool lives of the individuals who have received the counseling services. The administration of a school can have no clear idea of the worth of its guidance program, or the mistakes that are being made, or the phases which should be stressed more, or those which should be changed, unless data are available concerning outcomes, that is, concerning what is happening to the product of the school.

A third purpose of follow-up studies of school leavers is to gather information of general interest concerning those who have left. Such studies are intended to help all social agencies, including schools, deal with the problems of youth more intelligently. For instance, Rothney in concluding a report of a follow-up of members of the 1951 graduating classes of four Wisconsin high schools suggested "that the figures we have given, and the extent to which school people are aware of them, may assist us in keeping at least one foot on the ground in the planning of education for Wisconsin youth." (59:10).

The majority of the comprehensive follow-up studies reported thus far belong in this category. Among these may be mentioned the study conducted by the American Youth Commission in Maryland under the direction of Bell (9); the study by Eckert and Marshall, *When Youth Leaves School* (18), carried on as one part of the Regent's Inquiry in New York State; Eurich and Pace's (22) follow-up study of Minnesota graduates; the well-known study of Bell telephone employees made by Bridgman (13); Hale's *From School to College* (29); E. L. Thorndike's *Prediction of Vocational Success* (71); "A Study of the Needs of Adults for Further Training," by Trabue and Dvorak (74); a study by R. L. Thorndike under the title "Tests and Long-Time Prediction of Vocational Choice" (72); a study on "Job Appropriateness: A One-Year Follow-up of High School Graduates," carried on by Latham (42) under the direction of John C. Flanagan; a two-to-seventeen year follow-up study of the clinical features of hysteria in 41 children by Robbins and O'Neal (57); Hollinshead's *Who Should Go to College* (33); and the comprehensive study of school leavers carried on by Dillon for the National Child Labor Committee (15).

The great need at present is for the careful planning of continuous follow-up studies to be carried on by local school systems to serve the first and second purposes mentioned. The state education departments of a number of states, including especially Illinois and California, have undertaken to assist schools in planning and conducting follow-up studies. Follow-up work in several states is discussed later in this chapter.

In follow-up studies of graduates and other school leavers, the following types of information have been found useful in counseling programs:

1. Occupational distribution of school leavers.
2. Occupations in which employment is increasing.
3. Occupations in which employment is decreasing.
4. Time elapsed between school leaving and employment.
5. Success of graduates and nongraduates in employment.
6. Extent to which former students are engaged in the vocations they had in mind in school.
7. Degree to which vocational training pursued in school carries over into life.
8. Influence of such factors as age, sex, intelligence, health, school achievement, home background, and marital status on occupational adjustment.
9. Earnings of school leavers in various occupations.
10. Occupational conditions which have hindered progress.
11. Extent to which graduates are engaged in further study.
12. Success of graduates in higher institutions.
13. Factors that influence the migration of young people.
14. Ways in which students feel that their school training has been most beneficial.
15. Ways in which the school has failed to meet educational or vocational needs.

## PROCEDURES IN FOLLOW-UP STUDIES

The two main procedures used in gathering information in follow-up studies are questionnaires and interviews. Both procedures have certain limitations. It is not uncommon to find in the literature reports of follow-up studies in which less than half of those to whom questionnaires were sent replied. Eckert suggests that "to detect certain kinds of bias, such as lesser coöperation from persons who failed to make satisfactory adult adjustments, it may be necessary to interview a random sampling of nonrespondents and compare findings with those already secured from respondents" (17:107). Rothney and Mooren (60) have also discussed sampling problems in follow-up research.

In certain school systems, such as the Providence Public Schools, which have had much experience with follow-up studies, procedures have been developed for insuring a large proportion of returns. In a recent article, Ledvina (43) discussed procedures involved in the "100 percent follow-up."

Interviews are time-consuming and costly and are seldom practicable in the case of individuals who have left the community, but more detailed and perhaps more accurate information can be obtained in this way than by means of questionnaires. In some of the more recent follow-up plans, there is a tendency to submit a questionnaire to all school leavers and to select from those returning the inquiry forms a representative sampling to be interviewed. In other surveys, the interview has carried the entire burden of collecting data for the study. For instance, Barahal and Brammer (7) used what was termed the "permissive evaluation interview" in getting the opinions of 100 Stanford University freshmen concerning the extent and character of the counseling they had received in high school. The figures they gave on the basis of these interviews should effectively counteract any tendency to hold an exalted opinion of the status of high school counseling. Nearly half of the group were not able to provide a rating because they felt they had had no counseling in high school. Of the remainder, 23 freshmen thought that their high school counseling was poor, and 21 indicated that it was fair, while only two rated it excellent, and seven said that it was good.

In both questionnaires and interviews, the replies to questions of opinion about the values of training received in school may, because of what Wrenn (80) has called the "old oaken bucket" reaction, be somewhat too favorable. Everyone tends to remember pleasant experiences and to forget the unpleasant ones. When one has been out of school a few years, his memory of school life tends to be colored by sentiment and he is liable to exaggerate the values derived from the school program. Nevertheless, helpful leads concerning needed improvement in the school are frequently obtained by presenting questions of opinion in the inquiry form.

The treatment of some of the data obtained in follow-up studies is a straightforward clerical job. Data on types of occupation and salaries are of that sort. The analysis of those types of data involving covariance and causal relationship is, however, exceedingly intricate and baffling, and even competent research men sometimes draw questionable conclusions about the relationships of certain factors. It can be shown readily, for example, that number of years of schooling and standing in class are related to vocational success, but one is not justified in inferring a causal relationship without controlling other variables. The correlation may be due to the influence of intelligence upon the factors concerned. This is but one illustration of the need for interpreting with caution the data obtained in follow-up surveys.

A considerable number of helpful publications dealing with procedures in follow-up studies are now available. In a publication which may be obtained free of charge from the California Test Bureau, Brewster and Zeran

outline the steps to be taken in conducting a follow-up study (12).

The Illinois Department of Public Instruction has published a useful bulletin, by Henderson and Goerwitz, entitled *How to Conduct the Follow-up Study* (32). Topics discussed in this bulletin include the following: why the follow-up study is needed, the instruments used in the follow-up study, how to administer the follow-up study, how to summarize the findings, and how to interpret the findings and use them to accomplish the purposes of the study. There is an appendix showing instruments used in the follow-up study and summary sheets which may be used in summarizing the information on each of the 56 real-life problems of high school youth.

Similarly, the Bureau of Occupational Information and Guidance of the California State Department of Education has issued a *Guide for Making a Follow-up Study of School Drop-outs and Graduates* (27). This guide was prepared for use in connection with a state-wide study of drop-outs and graduates. In addition to an explanation of the procedures of the follow-up, the guide shows the questionnaire used in the study, as well as the form used by schools in notifying the Department of their intention to participate.

Likewise, the Michigan State Board of Education issued a publication, *Follow-up of Secondary School Graduates* (24), which furnishes "a comprehensive statement of the purposes, procedures, and outcomes of follow-up studies." This publication was used in the Michigan study of the secondary school curriculum.

Procedures in making and utilizing follow-up studies of school leavers were discussed by Sando (62) and by Fleming (23). A report of an actual follow-up study was included in each discussion.

An informal follow-up procedure that any teacher might use was described by Putman (56), a secondary-school teacher who followed up 150 graduating seniors of the class of 1951 between the first and second years after graduation. No questionnaire was employed; instead, Putman used informal procedures such as casual conversation with the individuals themselves or other interested parties, and talked with classmates, friends and relatives, and employers. He also made use of news notes in local and state newspapers and college publications. A running file was kept on each graduate. In this way, useful information was obtained about the post-high school activities of 79 percent of the graduating class, a high percentage in view of the number in the Armed Forces at that time.

Although most follow-up studies have been carried on at the secondary-school level, there is also a need for colleges to follow up their drop-outs and graduates. Pace (54) outlined the principles underlying follow-up studies of college graduates and discussed certain weaknesses that ought to be avoided. He then described three follow-up studies based on a series of opinion and attitude scales which could be scored so that the results could be treated statistically. He also illustrated the pattern for analyzing the results. Procedures such as Pace presented should be helpful in improving the design and breadth of follow-up studies and in bringing about closer relationships between these studies and the fundamental objectives of education.

## THE CONTINUOUS FOLLOW-UP SURVEY

Occasional surveys of school leavers, carried on intermittently, provide a certain amount of useful information for counseling purposes, but they do not satisfactorily meet either the purpose of helping the individual or the purpose of furnishing data on the product of the school. Under the conditions of a haphazard program of this kind, many former students who need help will escape attention, and up-to-date information on the circumstances surrounding school leavers will be lacking.

As Myers (48) has pointed out, the ideal follow-up plan is the continuous survey conducted as an integral part of a school's counseling program. Some schools have already inaugurated this type of survey. In the senior high schools of the Providence, Rhode Island, Public Schools, a plan of this kind has been in operation for years. The plan, which was described in detail by Allen (3), involves a follow-up survey of each class, one, three, and five years after the class has been graduated. The class counselor is responsible for making the study, although he may call upon the central office for a certain amount of clerical assistance.

Briefly the mechanics of the plan are as follows: a counselor stays with the same class throughout the three-year senior high school period. In the orientation course at the eleventh- and twelfth-grade levels, he introduces materials to help prepare the class for its own follow-up survey, and he stresses the importance of such surveys to both the individual and the school. The first year after the class is graduated, the counselor drops back to Grade 10 and begins the guidance of another class. At the same time, he makes a one-year follow-up study of his former class. Through the coöperation of class officers, and by means of questionnaires, telephone calls, and interviews, he manages to maintain a proportion of replies that usually reaches 98 to 100 percent.

The next year the counselor makes no follow-up study, unless he has been responsible for an earlier class, but

the following year, when his present counseling group is in Grade 12, he makes a three-year survey of the preceding class. The fourth year, the counselor has a new tenth-grade counseling group and he makes his first follow-up survey of the class just graduated. The next year, the earlier class is ready for its five-year follow-up. Henceforth. the counselor has one follow-up study to make each year, but never more than one. Needless to say, the difficulties of securing replies are greater in the three-year and five-year follow-up surveys than they are after an interval of only one-year, but even in the five-year follow-up, the counselors customarily manage to get returns from more than 85 percent of the members of the class.

When all available questionnaires are in, the adviser himself treats them statistically and writes a report of his study, which is then mimeographed in the central office for distribution to all advisers, principals, and staff officers. Finally, the studies of all advisers of that particular grade are combined to form a composite city-wide study.

A somewhat similar follow-up plan, involving one-, three-, and five-year follow-up studies, was recommended some years ago by the Implementation Commission of the National Association of Secondary School Principals as the result of its study of occupational adjustment carried on under the direction of Landy (40, 41). The need for follow-up of all school leavers, including drop-outs as well as graduates, was emphasized in that study, which was based upon data obtained from 1000 school leavers from six representative school systems. The study also pointed to the need for better placement facilities and for postschool counseling service. Only about 5 percent of the people studied secured their first jobs through the school authorities.

The report on the Occupational Adjustment Study suggested for high schools *A Post-School Occupational Follow-up and Adjustment Service Plan* involving the following steps:

1. The principal should become aware of the school-leaving intentions of his pupils.
2. At the time of school leaving, essential factual data should be placed on follow-up cards.
3. A follow-up inventory should be taken at one-, three-, and five-year intervals, by means of a written questionnaire. It is believed that through the use of recommended procedures, returns can be secured from 90 percent of the individuals to whom the questionnaire is sent. The returns should be recorded on the original follow-up cards. These cards can be sorted for purposes of occupational studies.
4. The school should secure, through the interview technique, additional information which may offer clues concerning the values of given practices, and suggest new ones. The principal should select from the follow-up group a representative sample of individuals to be interviewed. The recommended interview schedule consists of questions, the answers to which, according to experimental evidence, can be secured reliably by means of the interview technique.
5. It is recommended that a selected list of representative employers be compiled and that a suggested employer interview schedule be used with each of these employers.
6. A counseling service for all out-of-school youth should grow out of these interviews. There is a definite need for more adequate counseling of young people who have left school.

A manual was developed which contains specific instructions for using the questionnaire and the interview schedules. Counselors interested in experimenting with procedures for interviewing school leavers and employers can find the suggested interview blanks in the report of the Occupational Adjustment Study (*41:126–140*).

It appears from the literature on guidance that comparatively few schools have thus far undertaken continuous follow-up studies. One such study was reported by Gurr (28) of the East Bakersfield, California, High School. She submitted a simple postal card questionnaire (shown later in this chapter) to the classes of 1947 through 1949. Replies were received from the same persons at successive stages of their post-high school experience.

Aumack and Douglass (4) described a follow-up plan developed by the guidance office of the Compton Junior College which was continuous in the sense that 20 successive classes of students leaving the junior college were followed up. The main purpose was to gather information about the services of the junior college. The following conclusion concerning the value of the study appears in the report: "If the time and energy consumed in the making of the study were finally usable only by the guidance office at Compton Junior College, the results would have justified the expenditure, but its applications reach into many other areas. . . . The implications of the study will be carried into even broader areas of the community college concept by introducing pertinent facts into the curriculum meetings with the entire faculty."

## FORMS USED IN FOLLOW-UP SURVEYS

Representative forms which have been used in follow-up studies of high school graduates and other school leavers are shown in Forms 35 to 39.

## JUNIOR PLACEMENT SERVICE
PROVIDENCE PUBLIC SCHOOLS

PLACEMENT OFFICE | TELEPHONE DEXTER 9400

1. Your name ______________________ Date ________

2. Address ______________________ Telephone ________

3. School or college attended since graduation: Day Evening

| NAME OF SCHOOL | COURSE | DATE ENTERED | DATE LEFT | REASON FOR LEAVING |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

4. Working experience since graduation:

| FIRM NAME | ADDRESS | DATE ENTERED | DATE LEFT | SALARY | | YOUR POSITION |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

5. Do you like the work you are doing?

   What are its advantages?

   What are its disadvantages?

6. What subjects which you took in school have been most useful to you?

7. Are there any subjects you wish you could have had in high school?

8. Remarks and suggestions:

All replies will be considered *strictly confidential.* A report will be written for the class as a whole and will not show individual returns.

If you have suggestions you would like to make to your counselor, please use the reverse side of the questionnaire for a personal note.

Used with permission of the Providence Public Schools.

**FORM 35.**

## FOLLOW-UP SCHEDULE FOR GRADUATES

Page 1.

Name________________________Course________________Year_________

Address___________________________________Phone________________

Married______Single______Dependents______Parents' Name________________

**Part A.** EMPLOYMENT RECORD.

| Job | From | To | Employer | Address | Way Job Was Obtained |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |

EMPLOYMENT RECORD (Cont'd).

| Job | Name of Person Hiring You | Name of Foreman | Pay Rate | Kind of Work Done | Reasons for Leaving | Employers' Estimates |
|---|---|---|---|---|---|---|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |

**Part B.** JOB INFORMATION.

| Job | Machines Used, if Any | Tools and Materials Used, if Any | Operations Performed, if Any | Responsibilities, if Any |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

**FORM 36(a).**

## FOLLOW-UP SCHEDULE FOR GRADUATES (*Continued*)

Page 2.

Name______________________Course____________________Year_________

**Part C.** EDUCATION BEYOND HIGH SCHOOL

| From | To | School | Course | Credit | Remarks |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Part D.** GRADUATE'S ESTIMATE OF THE VALUE OF SCHOOL TRAINING.
(Rate M, most useful; F, fairly useful; L, least useful.)

Rating — Reasons

---- 1. English__________________________________________

---- 2. Mathematics______________________________________

---- 3. Science__________________________________________

---- 4. History__________________________________________

---- 5. Languages________________________________________

---- 6. Shop work________________________________________

---- 7. Commercial training______________________________

---- 8. Art______________________________________________

---- 9. Music____________________________________________

---- 10. Physical education______________________________

---- 11. Hygiene_________________________________________

---- 12. Social activities_______________________________

---- 13. Extracurricular activities______________________

---- 14. Other items_____________________________________

*Subjects that the graduate feels should be taught, with reasons:*

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

Used with permission of Elizabeth Public Schools.

## FOLLOW-UP SCHEDULE FOR GRADUATES (*Continued*) **Page 3.**

Name________________ Course________________ Year__________

**Part E.** Plans and Activities of the Graduate.

1. *Graduate's Plans for the Future.*

| Occupational | Education or Re-training | Other Plans, if Any |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

2. *Leisure Time Activities of the Graduate.*

| Hobbies | Athletics | Musical | Club | Other |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

3. *Significant Achievements of the Graduate.*

| Occupational | Civic or Political | Social |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

4. *Ways in Which the School Can Help the Graduate Now.*

____________________________________________

____________________________________________

____________________________________________

**FORM 36(b).**

## FOLLOW-UP SCHEDULE FOR GRADUATES (*Continued*) **Page 4**

Name________________ Course________________ Year__________

**Part F.** Observations of the Interviewer.

1. *Home Conditions of the Graduate.*

____________________________________________

____________________________________________

____________________________________________

____________________________________________

____________________________________________

2. *Physical Condition of the Graduate.*

____________________________________________

____________________________________________

____________________________________________

3. *Mental Outlook of the Graduate.*

____________________________________________

____________________________________________

____________________________________________

4. *Interviewer's General Impressions of the Graduate.*

____________________________________________

____________________________________________

____________________________________________

____________________________________________

____________________________________________

____________________________________________

____________________________________________

Graduate Interviewed by________________ Date______________194__

Year in college { Freshman ------ Sophomore ------ Junior ------ Senior ------

Name ------------------------------------------

College or university ------------------------------------------

Are any of your present courses selected with a vocation in mind? ------

If so, what vocation? ------------------------------------------

When did you decide on this vocation? ------------------------------------------

Did you select any of your high-school courses with this vocation in mind? ------

------------------------------------------

Was your high-school preparation adequate for the work that you are now taking? ------ If not, how was it weak? (Be specific.) ------------------------------------------

------------------------------------------

------------------------------------------

Do you find it necessary to work harder in college than you worked in high school? ------ Comment: ------------------------------------------

------------------------------------------

Have you received any honors or awards in college? ------ If so, what were they?

------------------------------------------

------------------------------------------

Have you taken part in any extra-curriculum activities? ------ If so, what ones? (Include athletics.) ------------------------------------------

------------------------------------------

------------------------------------------

Have you held office in any organization? ------ If so, what? ------------------------------------------

------------------------------------------

In the light of your present experience, could you have planned your work in the University High School so that it would have been more profitable to you? ------

In what way? ------------------------------------------

------------------------------------------

**FORM 37.**

Year in college { Freshman ------ Sophomore ------ Junior ------ Senior ------

Name ------------------------------------------

College or university ------------------------------------------

Is the school year divided into semesters or quarters? ------------------------------------------

| Semester or Quarter | Courses | Hours | Marks | Grade points |
|---|---|---|---|---|
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| First | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| Second | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| Third | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |
| | ------ | ------ | ------ | ------ |

Total grade points ------ Grade points possible ------

Rank in class: Percentile ------ If not available, in what quarter of the class does this student rank? Upper ------ Upper middle ------ Lower middle ------ Lower ------

Has the student received any honors during the present year? ------

If so, what? ------------------------------------------

------------------------------------------

Have you any evidence concerning citizenship of the student? ------

If so, check one of the following: Low ------ Average ------ High ------

Comment: ------------------------------------------

------------------------------------------

**FORM 38.**

1. Are you employed?__________ Or are you furthering your formal education?__________
2. What is the nature of your work, or in what college are you enrolled?__________
3. What courses taken at E.B. do you feel were particularly valuable?__________
4. What courses do you feel were least valuable?
__________
5. Have you suggestions as to courses of study, counseling, etc.?__________
6. Your name and address, if you please.

From Miriam B. Gurr, "Continuous Follow-up Study," *California Journal of Secondary Education*, May, 1951. Used with permission of the California Association of Secondary School Administrators.

**FORM 39.**

## STATE-WIDE AND COUNTY-WIDE FOLLOW-UP STUDIES

In an earlier section of this chapter reference was made to bulletins and brochures developed by state departments of education in a number of states in order to explain purposes, plans, and procedures of follow-up studies to schools. The plan worked out in one of those states, California, was used in a coöperative study of school drop-outs and graduates which resulted in a comprehensive report entitled *Now Hear Youth* (50).

A follow-up study of early school leavers in Kentucky, sponsored by the Kentucky Association of Colleges, Secondary Schools, and Elementary Schools, was reported by Hecker (31). Pupils leaving Kentucky high schools during the period 1948 to 1950 served as the basis of the study. Data were presented on the extent and causes of early school leaving. In order to reduce the number of drop-outs, certain guidance procedures were recommended, including detection and diagnosis of maladjustment in the elementary school, the use of a comprehensive cumulative record system, and the scheduling of carefully planned conferences of the homeroom teacher with the pupil and his parents.

A report of a statewide follow-up study in Virginia was given by Miller (45). The study was carried on during 1948–49 of those students who were graduated or who dropped out of high school in 1939–40. A questionnaire was submitted, to which 50 percent of the graduates and 25 percent of the drop-outs responded. A significant finding of the study was that more than half of the former students had had little or no help of a guidance nature. A series of recommendations was drawn from the information obtained in this survey.

Follow-up studies may have especially significant and worth-while outcomes if the coöperative effort in the studies is extended beyond the school personnel and is made community-wide. This observation is pointed up by follow-up studies of graduates and drop-outs carried on in Cabarrus County and Duplin County of North Carolina, as reported by Ellis (20). It was stated that "the primary method used in the Cooperative Project was that of involving lay-professional committees in the identification and study of school problems." The major outcomes in Cabarrus County were (1) greater understanding of the drop-out problem among lay citizens; (2) a large number of changes in the school program; and (3) desire for lay-professional evaluation of the schools. In Duplin County, the study led to a concrete and far-reaching outcome in that seven high schools were consolidated into three large modern schools.

The factual information which served as the basis of these studies was obtained by means of interviews, many of which were conducted by citizens of the respective communities. It was concluded that "the lay-citizen interview technique opens up promising possibilities for acquainting lay-citizens with a wide variety of school problems."

## SALIENT CHARACTERISTICS OF A FOLLOW-UP PLAN

The following are among the characteristics of a desirable plan for following up school leavers:

1. It is planned to serve the needs of both the individual and the school.
2. It begins before the students leave school.
3. It is continuous.
4. It includes all school leavers—those dropping out as well as those being graduated.
5. Each class is followed up for at least five years.
6. Procedures are used to insure returns from 80 percent or more of those to whom the questionnaire is sent.
7. A representative sampling of each group is interviewed in order to obtain more extensive and detailed information than can be included in a questionnaire.
8. Responsibility for making follow-up studies is decentralized so that each class adviser follows up his own classes as they leave school.
9. The adviser's analysis of the data is made available to other school functionaries and is combined with those of other advisers in order to give a complete picture for the school system.
10. Conclusions concerning causal relationships are drawn with caution.

11. The significant items from each individual's return are transferred to his cumulative record card.

12. The follow-up plan is coördinated with a post-school counseling service.

13. So far as possible, the coöperation of lay citizens is obtained in collecting, studying, and using the follow-up data.

The inauguration of a continuous follow-up service may seem to place a considerable additional burden upon a school staff, but it has been found in practice that a program of this kind is more than worth the additional labor and expense. It helps the school administration, the counselors, the placement office, and the young people who furnish the replies. Perhaps more important than any of these, it benefits the boys and girls still in school, since it helps to bring about needed improvements in the entire school program.

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CHAPTER XVIII

# *Guidance in the Adjustment of Individuals*

A GUIDANCE PROGRAM OBVIOUSLY CONSISTS OF more than the techniques discussed in this book. Familiarity with and skill in using these techniques should greatly increase a counselor's effectiveness, but it should be clear to everyone that the techniques are tools or means to an end, and that intelligence, understanding, sympathy, and insight are required of a counselor in the application of these techniques to the guidance of individual boys and girls.

The science of guidance is applied by counselors and teachers who are not highly trained in psychology more readily to the *distributive* phases of guidance than to the adjustive aspects. One who is well informed concerning the educational and vocational opportunities for young people and who has command of the procedures for obtaining broad and accurate information about individuals can guide students toward the most appropriate kinds of educational and occupational choices with confidence and with a large measure of success. This aspect of guidance, of course, contributes to the adjustment of the individual, but these adjustive functions are indirect and may not be fully realized by either counselor or student.

Even though many persons participating in a school guidance program have had little professional training for counseling, they can be very helpful to individual pupils in connection with the *overt, immediate problems of adjustment.* The more common general areas into which these problems fall are pupil-teacher relationships, relationships with other pupils, relationships between pupils and parents, study difficulties, and minor behavior difficulties. This type of problem is usually specific, and ordinarily it is either recognized by pupil and counselor from the outset or it emerges and is identified in the course of one or two interviews. Not infrequently, this type of problem can be solved quickly through the planning of a definite and immediate course of action. Information is often a large component of counseling in these areas. When the counselee has obtained the information he seeks from the counselor and when he has learned what the alternatives are, he can reach a decision as to what he ought to do.

*More important adjustment problems* are deep-seated, are woven into the fabric of the individual's personality, are not overtly related to symptoms, and are to be resolved largely through growth and development over a considerable period of time. It is in this area that the average counselor is most likely to fall down on the job because of lack of knowledge and skill in psychotherapy. There is danger that he will either completely overlook the maladjustment and do nothing about it or will misinterpret the difficulty and try to apply treatment directly to the symptoms. Even when he correctly diagnoses the difficulty, he may get into deep water if he tries to prescribe and direct a program of treatment himself.

There is no easy solution for the lack of preparation of a large proportion of school guidance functionaries to handle difficult and obscure cases of maladjustment. But consideration of certain fundamentals may sharpen the awareness of counselors to these problems and help them avoid some of the pitfalls.

## WHAT IS ADJUSTMENT?

Occasionally in the use of the term adjustment we imply that the most desirable state of adjustment is one in which the individual is perfectly happy and satisfied with all aspects of his life, and one in which he has reached the level in all his contacts with his environment that he would be glad to see persist through his life. Seldom, if ever, is this kind of adjustment achieved by an individual in all his relationships, and it would

not be a desirable kind of adjustment even if it were realized. Complete adjustment in all aspects of life would lead to extreme mental and physical stagnation. Much of the motive power of living would be lost.

A certain degree of lack of adjustment is wholesome and stimulating. Man's realization that he has not reached the adjustment level he desires is one of the great driving forces both for individuals and for social groups. Much of the work of the world is done by those who are somewhat unadjusted but who are striving for better adjustment. In fact, some of the most outstanding contributions of our civilization, particularly in the fields of literature and music, have been made by men who were decidedly neurotic. This is not to imply that the eradication of maladjustment and the bringing about of better adjustment all along the line is not desirable, but it is well to keep in mind the fact that adjustment is always relative and that occasional evidence of maladjustment is usual and does not set one off from the normal group.

In the last analysis, the best-integrated and adjusted individuals seem to be those who have established some reasonable goals in line with their interests and abilities and who have settled down to work toward those goals seriously and steadily but without unusual tension. It is highly desirable for advisers to keep in mind the *integrative and adjustive nature of purposeful behavior* in connection with the therapeutic aspects of their counseling work.

## THE DANGER OF LABELS

In every area in which thinking is done, vocabulary is, of course, extremely important, not only as a vehicle of thinking but as a guide to and a determiner of thinking. The truth of this observation is especially apparent when the personality adjustment of an individual is being considered. To the lay mind, the word *psychoneurotic* has a connotation that is especially damning to the individual concerned; yet it is a generic term which covers everything from mild neuroses to personality aberrations that merge with the psychotic and call for institutional treatment. In reality, the term has little meaning until the nature of the difficulty is defined.

An illustration of the need for especial care in the application of technical terms to individuals is furnished by the cases of some of the veterans returning at the end of World War II and after the Korean War. The Armed Forces designated a considerable number of men unfit for military service because of psychoneuroses. Where a given individual was concerned, this may be significant with respect to his ability to adjust to civilian life, or it may have little or no significance. There is a positive correlation between external conditions—between physical, mental, and emotional pressure—and neurotic tendency. Many individuals who cannot withstand, over a long period, rigorous and exacting conditions such as those found in military life get along very well in civilian environment. It is probably no exaggeration to state flatly that every individual without exception may become neurotic if he is placed in an environment which subjects him to continuous emotional tension or to a continuous series of problems which he cannot solve.

It is of the utmost importance for counselors to keep in mind one basic tenet of modern psychology. This tenet is that individuals can never be clearly separated into the normal and the abnormal or into the emotionally adjusted and the neurotic, but rather that *abnormal psychological phenomena are either exaggerations or disguised developments of normal psychological phenomena.* Counselors who keep this important principle constantly in mind will be in much less danger of allowing the jangle fallacy resulting from names and labels to obscure their thinking concerning individual cases.

## MECHANISMS OF ESCAPE FROM REALITY

Major problems which seem insoluble to the individual concerned are the chief source of emotional disorders. The characteristic abnormal reaction to a baffling problem is some type of retreat from reality. Avoidance of reality may be attempted in many ways. Some of the milder forms of escape are *repression,* or forgetting the unpleasant experience or problem; *rationalization,* or the advancement of plausible but incorrect reasons to justify a course of action or explain a failure; *phantasy,* or daydreaming in which one achieves imaginary fame or success, performs wonderful feats, or renders outstanding service; and *projection,* or attempts to divert attention from one's own problems by dwelling on those of others or attributing to others his own shortcomings. These means of avoiding facing problems are undesirable, but they are very common among normal individuals. Their mechanism is not highly complex, and school counselors should be able to recognize them and to help individuals who are being counseled understand how they function and how they can be overcome.

A more serious mode of escape from difficult problems or unwelcome situations is the development of temporary *mental or physical ills or incapacities* which force the individual out of the activities he wishes to avoid. For example, a boy who fears he will fail a difficult examination may develop an upset stomach on the morning of the examination day and have to spend the day in bed; or an extremely timid girl who is frightened at the thought of having to make a talk in her English class may come

down with a nervous headache. These mechanisms of escape may take place not merely once but each time a difficult situation is encountered. Occasionally they represent deliberate malingering, in which case they are more reprehensible but not so serious psychologically. Not infrequently, however, the individual is made actually sick by the difficulty he faces. He is not pretending illness, and he is probably not even aware of the relationship between his indisposition and his desire to escape an intolerable situation.

Hysterical-like symptoms such as those just described are likely to be baffling, but they are not insoluble in a counseling situation in which the counselor is able to enlist the active coöperation of the individual in analyzing his symptoms and going to the root of the trouble. In rare instances, however, the mechanism of hysteria may be completely beyond the counselor's experience and beyond any contribution he can make to a treatment of the case, except to report what he observes.

The outward manifestation of hysteria in the technical sense is a disease symptom. The number of diseases that may be simulated by a hysterical person is almost infinite. An inquiry into the mechanism of hysteria would call for an extensive study of the theories of various psychologists, including especially Janet (28) and Freud (16). The explanation advanced by Freud is interwoven with his concept of sex as the great motivating force in human life. Regardless of what theory is accepted, the modern treatment of hysteria calls for analysis by an expert in psychology or psychiatry and a program of reëducation.

It is not probable that school counselors will encounter cases of major hysteria, for the withdrawal reactions of children and adolescents in school are rarely so extreme. An awareness of the symptoms of marked maladjustment may help counselors occasionally, however, to recognize incipient abnormal tendencies and to take steps to bring these cases to the attention of specialists in the early stages when adjustment can readily be brought about.

For more thorough and very readable discussions of the nature, principles, and processes of adjustment, *The Dynamics of Personal Adjustment* by Lehner and Kube (31), and *A Manual of First Aid for Mental Health in Childhood and Adolescence* by Green and Rothenberg (20) are excellent references.

One of the primary functions of counselors is to help young people learn to meet problems frankly and courageously, and to accept frustration philosophically. All persons have limitations; no one can excel in everything. Failure can be reduced by setting goals that are within the capacity of the individual, but even under the best planning possible, every individual will have his failures and everyone will meet some problems—vocational, social, or personal—which are clearly insoluble as far as he is concerned. When one of these immovable barriers is encountered, an individual may either persistently refuse to accept the reality of the situation until he experiences a disintegration of personality or he may find compensatory activities and other outlets around which he can achieve such an integration of personality that he may emerge from the experience stronger than before. Everyone will agree that the counselor has extremely important work to perform in this connection, but no one has ever been able to give him a blueprint of how to proceed, although it may be helpful to list the steps in a usual counseling situation where the primary purpose is therapeutic.

## STEPS IN COUNSELING FOR ADJUSTMENT

The traditional concept of counseling is the giving of advice. While this limited definition of counseling is no longer accepted by counselors with professional training, it is still widely held by pupils and laymen. According to this concept, a student goes to his counselor with a problem, or the counselor calls him in, and then the counselor talks the situation over with the student and out of his broader knowledge and more mature experience offers suggestions for the student to consider and presumably to act upon. This will no doubt always be an important phase of counseling, for in the experience of every student there may arise emergencies of urgent and immediate import concerning which the advice of an experienced and understanding friend is greatly needed. The need for early resolution of the difficulty may outweigh the desire to make the counseling relationship a growth experience for the individual.

These instances, however, are exceptional. In the more common counseling situation, the modern emphasis is upon the sharing of experiences and not upon the counselor's accepting responsibility for the solution of problems. The more skillful counselor who is seeking to help the student to better adjustment is likely to let the individual do the larger share of the talking while, by means of timely questions, he shrewdly and subtly directs the line of thinking until, in the end, the student himself will seem to have thought the problem through and to have decided upon a course of action almost independently. It is here that counseling loses much of its scientific character and takes on the guise of a highly sensitive art.

This approach to counseling not only is likely to be more successful in the immediate situation, but it has for its more remote objective the development in the individual of a confident, independent, and thoughtful attitude that will lead him to make a determined effort to solve his own problems whenever they arise.

The following list indicates the steps that may take place during successful counseling for adjustment:[1]

1. The student asks his counselor for help and states the situation as he sees it.
2. The counselor and student discuss the situation until the problem is clearly defined.
3. The counselor leads the student to talk about the problem at length. In the beginning, the individual's statements about the problem will in all probability be negative. That is, he will talk about how difficult the problem is or how unendurable the situation, and how thoroughly disgusted he is with the whole business.
4. Instead of criticizing this attitude, the counselor accepts it as normal and logical. He does not show approval, but he avoids creating antagonism by trying to force a different attitude at this point.
5. After the individual has "talked himself out," the counselor, by means of appropriate suggestions, leads him to begin consideration of the positive side of the situation.
6. The counselor accepts the positive suggestions of the individual calmly and thoughtfully, and voices approval when the individual seems to be on the right track.
7. As the subject talks on the positive side, he begins to develop insight and to formulate a plan of action.
8. The counselor allows the individual to do most of the planning, but keeping in mind the accumulated information he has about this student, he tries to steer him into a course of action consistent with his abilities and with the problem at hand.
9. The individual puts his plan into action, thereby acquiring further understanding of the problem.
10. He develops an integrated and successful program of action, loses his need for the counselor, and terminates the guidance relationship as far as it applies to this problem.

This outline of the development of a counseling situation is, of course, very general, and in actual practice certain steps frequently will be merged and will not occur in exactly this sequence. The important point is for the adviser to see that the subject takes positive and appropriate action which is self-initiated and is therefore likely to persist and to contribute to the personal growth of the individual.

## CHARACTERISTICS AND PROFESSIONAL TRAINING DESIRABLE FOR COUNSELORS

The techniques discussed in the other chapters of this book will, when used intelligently, provide much of the data for a dependable guidance program. Familiarity with these procedures will help the work of every counselor, but the point which will bear repetition is that close attention to them does not alone constitute guidance. It is through the intelligence, understanding, skill, and personality of the counselor himself that life is given to these techniques. The personal qualities of a school's counselors are among the most important determiners of the excellence of its guidance program. Probably not more than one-fourth of the teachers in a school have the qualities required for superior work in the guidance of young people. The characteristics needed for successful counseling of individuals include:

1. An intelligent view of the philosophy of individual guidance and the relation of guidance to a broad educational program.
2. A genuine interest in, liking for, and faith in people.
3. Ability and willingness to know and understand individuals before attempting to guide them.
4. A sincere and businesslike attitude, tempered by a sense of humor.
5. An easy and cordial manner in meeting and talking with people.
6. Ability to approach the main problem in a discussion without abruptness but without vacillation.
7. Ability to control the interview and still take a self-effacing position.
8. Skill in asking the right questions at the right time and in keeping silent at the right places during an interview.
9. Awareness of one's own strengths and limitations as a counselor, combined with a willingness to undertake what one is competent to do, and to admit inability to provide treatment for certain individuals.
10. Sufficient knowledge of various theories of personality to understand what different kinds of overt behavior may mean in terms of maladjustment.

With regard to the last category, many counselors—perhaps the majority—have not specialized in psychology. Much of their training in psychology must be acquired through in-service reading and experience. Their reading is certain to bring them into contact with various theories concerning the organization of personality, including those of Jung, Kretschmer, Adler, and Freud. Jung has stressed introversion-extroversion; Kretschmer, constitutional types; Adler, compensation and struggle for power; Freud, sex, broadly defined, and psychoanalysis. Freud's theories are likely to be both highly intriguing and very confusing for one not professionally trained in psychiatry. The usual first reaction is to reject and even to ridicule Freud's whole point of view, for his analysis of maladjustment in terms of repressed sex impulses—in particular, his emphasis upon infantile sex drives—seems at first thought to be far-fetched and even bizarre. Without ques-

[1] For a more detailed outline and discussion, see Carl R. Rogers, *Counseling and Psychotherapy*. Boston: Houghton Mifflin Company, 1942.

tion, there has been a great deal of misinterpretation and exploitation of Freud's theories by incompetent charlatans, and there has been, and still is, much popular misinformation about his contribution to psychology.

Nevertheless, Freudian psychology is so closely interwoven with modern psychiatry that guidance people in schools cannot choose to ignore Freud if they expect to enlist the coöperation of experts in the handling of difficult and obscure cases. The principal contributions to and applications of Freudian psychology have in recent years passed from Germany to America. A competent and especially thorough and critical appraisal of Freud's work from the American point of view is to be found in the writings of the late Karen Horney (26). Freud's own introductory book on psychoanalysis was translated into English by Joan Riviere (16).

Those who are specialists in psychology are likely to have their moments of doubt as they contemplate the guidance scene in the United States and observe thousands of classroom teachers, whose training has been in English or mathematics or social studies, performing guidance functions and making certain tentative explorations and probings into the personality of the pupils they counsel. They are inclined to wonder sometimes, even though they do not voice their fears, whether more harm than good may not come from such an arrangement. The whole thesis of this book, however, is that counselors who are not professional psychologists are entirely capable of performing the *distributive functions* of guidance and many of the *less involved adjustive functions*, provided they will get acquainted with and use the techniques for knowing individuals and helping the individuals to know themselves. Every guidance program should be so organized that the services of one or more specialists in mental therapy are available for the handling of the more involved cases. Teacher-counselors can contribute to the treatment of these cases by observing pupils accurately and with some understanding of the problems involved, and by reporting their observations to these specialists. They can increase their effectiveness in this regard by means of carefully selected professional reading and through summer-session and extension courses in mental hygiene.

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CHAPTER XIX

# *Counseling as a Learning Function: A Meeting Ground of Viewpoints*

## WHAT SCHOOL OF COUNSELING?

THE PUBLICATION OF CARL R. RODGERS' BOOK, *Counseling and Psychotherapy* (18) in 1942 marked the beginning of an extensive debate over philosophy and techniques of clinical counseling which enlivened psychology and guidance for some years. Strong differences of opinion persist, but the intensity of the disagreement has diminished during the last several years as proponents of the different schools of thought have come to understand each other's position better and have found a certain amount of common ground.

The opposing groups in this debate, which has sometimes taken on the guise of a controversy, have commonly been designated as the directive and the nondirective. The term "directive" as contrasted with "nondirective" is largely a misnomer. Strictly directive counseling is seldom practiced today, even though it may have been a common practice during an earlier period. Trained counselors of whatever persuasion clearly understand the importance of meeting the counselee on equal terms and of making the counseling process a sharing of knowledge, experiences, and viewpoints.

### A FOOTNOTE TO HISTORY

In order to see the whole matter in perspective, it is necessary to go back in time into the nineteenth century to the work of Freud and his disciples. Freud's development of psychoanalysis was largely nondirective. The subject was encouraged to express himself, to talk and keep on talking, to bring up from his subconscious memories and thoughts and feelings long suppressed and to take a good look at them. A major role of the psychoanalyst was to stimulate the subject to express his innermost thoughts; the subject, not the analyst, did most of the talking.

But Freud as a medical man was always aware of the need for complete and accurate diagnosis. The catharsis of confession was an important element but was not in itself enough. It was not assumed that the patient could work out his own salvation without outside assistance. A central purpose of getting the subject to talk himself out was to bring to light long-hidden thoughts and emotions that would serve as the basis of diagnosis by the professionally trained analyst.

Freud's influence began to be felt in this country early in the twentieth century. The writings of one of Freud's leading disciples, Otto Rank, were translated and applied by Jessie Taft (15, 16), in a very helpful way. The Philadelphia Child Guidance Clinic, under the direction of Frederick H. Allen, and other centers stressed the dynamics inherent in the therapeutic work which had been emphasized by Freud and Rank (1).

At the turn of the century, another influence which was to impinge mightily upon the guidance movement had its beginning. Impressed by the success of the application of precise, objective methods of research in the physical world, Rice, Thorndike, Judd, Freeman, Courtis, and other young psychologists and educators developed a conviction that similar methods could be applied to the study of the mind of man. It will be recalled that this was the heyday of Newtonian physics. Man inhabited a

corner of a neatly conceived, mechanical, deterministic universe. The new Titans of the world of science were only at the beginning of their work. Einstein was just in the process of publishing the three papers that were to shake classical physics from its foundation. Max Planck had only tentatively enunciated his quantum theory and was not himself ready to accept its implications. The renaissance of physical science was nearly 25 years in the future, and it would be still another quarter of a century before its impact upon thinking in the social science fields would be felt to an appreciable degree.

So the science of psychometrics was born. Measures of aptitudes, achievement, and certain aspects of personal qualities were developed and improved. These were not wholly precise, but they gave good approximations of the qualities they were intended to measure, and they took much of the guesswork out of the appraisal of individuals.

Leaders in the guidance movement began to apply these instruments diagnostically. The clinical use of tests in diagnosis as a step in counseling became standard procedure.

Rogers' paramount contribution was that he made the counselee the center, not only as object but also as process. There was a kind of dualism in Freudian psychotherapy—diagnosis by the analyst or counselor and catharsis through expression by the patient. The approach of psychometrically oriented counselors was that of the scientific method—gather the data about the counselee, analyze it, form a hypothesis concerning the problem (diagnose), develop a plan mutually with the counselee for meeting the problem, put the plan into action (test the hypothesis), evaluate the progress of treatment (reappraise the hypothesis) and make needed adjustments in hypothesis and treatment, and carry the plan forward until the problem is solved. An actual counseling case is seldom carried out in such a formal way, but the basis of the scientific method is present in some degree. Rogers, in a sense, by-passed both diagnosis by the psychotherapist and the scientific method of the psychometrician. He expressed faith in the ability of the counselee to carry out the whole process of problem solving through his own self-expression.

Thus a new school of counseling came into being which had wide appeal. It interested professional psychologists because it represented a new orientation in thinking; it appealed to social case workers and religious workers because of its expression of faith in the individual; and, one suspects, it intrigued many young persons entering upon work in the field of guidance because it seemed to offer a kind of ritual whereby adjustment counseling and depth therapy could be carried on by persons without a great deal of background in professional psychology and with practically no understanding of psychometrics or measurement. So the "nondirective" or "client-centered" school of psychotherapy and counseling developed with extreme rapidity.

## DIFFERENCES BETWEEN "DIRECTIVE" AND "NONDIRECTIVE" COUNSELING

Overtly, there are some noteworthy differences between the counseling procedures of the nondirectivists and other counselors. A counselor not allied with the nondirective school customarily retains a considerable degree of control over the interview, participates much as he would in ordinary conversation except that he keeps in mind the fact that the conversation has a purpose, shares experiences with the counselee, gives information including the results of tests, makes suggestions, and takes an active part in planning with the counselee. A nondirective counselor acts as a kind of catalytic agent. He does very little talking and he spends most of his time listening and waiting. He makes noncommittal sounds from time to time, utters brief expressions of encouragement such as "yes," "I see," and "tell me more," and often repeats the last sentence or thought of a statement made by the counselee. During the interview there are frequent long pauses. To an observer, the counselor and counselee may seem to be playing a waiting game which the counselor can always win because he knows why he is waiting and the counselee doesn't.

Differences between the techniques of "directive" and "nondirective" counseling are not, however, the basic differences. The real difference goes much deeper. It is rooted in fundamental philosophical understandings, and it cannot be entirely resolved. The nondirectivists profess complete faith in the individual counselee. They apparently believe that every individual has within him the resources needed to work out satisfactory and satisfying answers to his own problems. He does not need to call upon his environment for help, or if on occasion he does have such a need, he will recognize it and the help will be self-initiated. What he does need is a warm, permissive atmosphere for his thinking, unrestricted by diagnosis or value judgments on the part of the counselor. As Rogers has said of the counselor, "He can only be as 'nondirective' as he has achieved respect for others in his own personal organization." (20:83). Similarly, Lipkin's words are pertinent, "The underlying philosophy of nondirective psychotherapy is based on the concept that the individual has within him strong growth drives which he can best be helped to realize if the counselor does not take over major responsibility for the treatment process by acting as a direct omniscient influence, but if, instead, he serves the client as a catalytic agent, by enabling him to utilize his own

resources for resolving conflicts." (10:139). The term "self-concept" recurs frequently in client-centered terminology.

The other guidance specialists, the "directivists," the psychometricians, and those who approach counseling as a science or as a blend of science and art, are unwilling to accept the thesis that the individual invariably has within him everything needed for his own salvation. *Here the real issue is joined.* In the words of Williamson, one of the pioneers in the science of personnel work, who, as much as any other leader in this field, has been a spokesman for those outside the nondirective group: "The history of pedagogy, as well as that of therapy, indicates that some types of direct assistance from outside the individual's human capacities seem to be needed to achieve inner growth." (36:334).

## SIMILARITY OF NONDIRECTIVE COUNSELING TO PROGRESSIVE EDUCATION

There would seem to be no doubt that nondirective philosophy and techniques have made and are making an important and worth-while contribution to guidance services. While nondirective counseling has a positive orientation of its own, it is, at the same time, in a sense, a protest movement against conventional practices in clinical counseling. There is a kind of parallelism between nondirective therapy and the progressive education movement centered around children's interests which was born in the second decade of this century, waxed strong during the 1920's and 1930's, waned in the 1940's, and died as an organized movement in the 1950's. Progressive education, like nondirective therapy, had its starry-eyed converts and its "lunatic fringe" who in their unrelenting and ritualistic zeal went beyond the tenets of its founders. But it did much to break down formalism and narrow, hidebound practices in education, and it helped lead to acceptance of the child rather than subject matter as the prime concern of the educative process. The most extreme of its practices has fallen away, but the influence of its philosophy lives on, permanently interwoven into the fabric of modern education. It seems inevitable that a dynamic new movement will swing the pendulum too far to the side for a time in order to allow it eventually to come to rest somewhere in a middle position.

## STRENGTHS AND LIMITATIONS OF THE NONDIRECTIVE APPROACH

Since nondirective counseling is essentially intuitive, it is difficult to evaluate its outcomes objectively. Some of the cases who are approached nondirectively are likely to be lost in the early stages of the process because of initial confusion and dissatisfaction of the client and a feeling on his part that he is getting nothing of value from the one-sided interview. There is, however, considerable evidence that, where counselees persist beyond the first stage, nondirective procedures are effective in many cases. Favorable evidence is reported in studies by Lipkin (10), Raimy (14), Snyder (26), Watt (33), and others.

It is undoubtedly true that, as Max Wertheimer (34) has insisted, all education has in the past been overdirective. At an earlier period in the history of the guidance movement, this was in all probability true of guidance services, as well as of other aspects of education. Nevertheless, the nondirectivists have tended to overstress this point. The modern, trained counselor of whatever school tends to make the counselee the center of the process. As Hahn and Kendall (7) have pointed out, there is no "counselor-centered" approach. The nondirective school is prone to concoct a straw man—a highly directive counselor—and to have a merry time demolishing this hypothetical character. This may be a stimulating exercise, but it is not very productive.

There has, likewise, been an overcritical attitude on the other side. When Rogerian therapy burst upon a startled guidance world in the mid-1940's, attention was centered, first of all, upon the most obvious aspect, the techniques. The general reaction was critical, even to the point of ridicule over what was sometimes facetiously referred to as the "uh huh school" of counseling. It fairly soon became apparent, however, that there were more professional and more valid reasons for refusing to accept nondirection as a universal counseling procedure.

In the first place, only a small proportion of the instances in which counseling is requested in the usual school or college situation calls for psychotherapy. For instances, Jones states that in a survey at the University of Buffalo it was observed that "only about 5 per cent of the actual contacts made with students involved deep-lying anxiety and conflicts where nondirective techniques are praticularly indicated." (9:560). Hahn and Kendall (7) divided problems with which the clinical psychologist works into two general categories: (1) personal-social-emotional and (2) educational-vocational, and they stated that the second outnumbered the first about three to one. Obviously, when a student goes to his counselor about a minor change in his study program or with a request for information about where he could get suggestions for overcoming spelling errors in his written papers, it is hardly appropriate for the counselor to attempt to probe deeply into his emotional life and adjustment or to try to have the student work the answer out for him-

self instead of giving him the simple and direct help he needs.

Moreover, where a need for therapy is indicated, there is, as Williamson (36) has insisted, a question whether it is possible for the counselor to avoid imposition and a related question whether the counselor exerts less influence on behavior when he interprets or clarifies than when he predicts, suggests, or advises.

Even if such influence on the part of the counselor can be avoided, it would seem that the question of whether the counselor should avoid taking an active hand can hardly be decided, in advance, on the basis of general policy, but must be decided in terms of maturity and understanding of each counselee. A counselor wholly committed to nondirection would allow a client complete freedom of choice, even to the point of choosing between life and death, with full confidence that the client would, in the final decision, choose to live. Conceivably, that amount of freedom might be permitted a mature individual who came to a clinic for counseling, but to apply the same principle in the counseling of school children and college youth would, it is believed, be morally reprehensible and against the public interest. The counselor is not alone a confessor and a catalyst to the individual; *he is a servant to society*. As such, he cannot escape a duty to step in, on occasion, and take rather firm control of the situation where his greater experience, knowledge, and insight indicate that that procedure is the surer way of avoiding catastrophe.

### ENTER THE ECLECTIC

Recognizing values in both directive and nondirective approaches to counseling, many modern personnel workers are taking an eclectic position. They constantly try to keep in mind the advantages and limitations of all schools of counseling, and to select in the case of each counselee those procedures that seem most appropriate to the immediate situation. As Jones (9) has suggested, there is a frequent need for shifting gears, even in the same interview. He pointed out that "a soul-searching analysis of past conduct and motives may be handled sympathetically and quite nondirectively," but that a considerable amount of directiveness may be needed in planning and carrying out treatment.

The eclectic point of view was stressed by Hamrin and Paulson (8) in their extensive discussion of counseling. Along a similar line, Cottle (5) has called attention to some common elements in all systems of counseling. Among these are acceptance of the client as he is; emphasis on growth of the client's capacity to solve his own problems; an atmosphere of frankness and honesty; breadth and depth of knowledge about people on the part of the successful counselor; ability to handle communication in the interview; changes in the feelings and attitudes of the client, as he progresses in the interviews, from those of confusion, uncertainty, and negation, to those which are organized and positive; and structuring of the limits which are developed to determine how the counseling will proceed.

The majority of the counselors working in present-day schools and colleges are believed to be eclectic in their procedures regardless of whether they consciously place themselves in that category.

## COUNSELING AS A LEARNING FUNCTION

The tendency of many counselors in educational institutions to assume an eclectic position in their work is believed to be desirable as far as it goes. But eclecticism, in itself, is hardly enough. The eclectic is an opportunist and a borrower. He has no definite philosophy around which to orient his work. He needs some guideposts of his own.

The concept of counseling as a learning activity may furnish the kind of orientation he needs. This concept may be a mutually agreeable meeting ground for the different schools of counseling. Williamson, representing the scientific approach to counseling, has said "To me, the counselor may be thought of as a special kind of teacher, with primary concern for the individual's personality development, normal and deviate as well" (35:151).

In his book, *Client-centered Therapy*, Rogers included a chapter on "Student-centered Teaching," in which he stressed the close relationship that is possible between client-centered counseling and learning. In discussing the instructor who takes the client-centered approach, Rogers says, "He has confidence in the fact that, in this atmosphere which he has helped to create, a type of learning takes place which is personally meaningful and which feeds the total self-development of the individual as well as improves his acquaintance with a given field of knowledge" (21:427).

In the first chapter of their book, *Student Personnel Work as Deeper Teaching*, Lloyd-Jones and Smith call attention to the relationship between guidance and teaching in these words, "This book attempts to set forth the view that student personnel workers should not so much be expert technicians as they should be educators in a somewhat unconventional and new sense. Student personnel workers have many opportunities through their work to contribute to the development of students, to help them learn many lessons and skills of vital impor-

tance for their fulfillment as whole persons within a democratic society" (*11:12*).

The Pepinskys, likewise, stated a theory of counseling as a learning situation in which the modification of the counselee's behavior takes place. They said at one point, "To bridge the gap between present and past and future behavior, or between behavior inside and outside the counseling situation, linking hypothetical constructs are needed. The concept of learning provides one such connection" (*13:71*). And, further on, they stated that "the counseling situation is conceived as one where distinctly social learning can take place and where a significant function of the counselor is to facilitate that social learning" (*13:143*).

In an article discussing similarities and differences between psychotherapy and education, Symonds said, "With the passage of years, the function of psychotherapy is conceived to be that of assisting in belated personality development, while education, too, has accepted greater responsibility for the all-round development of the individual instead of for isolated segments of his personality. Methods of the two disciplines, too, have become more and more alike until some writers suggest that they are almost identical" (*30:61*).

It is evident that a good many leaders in personnel work are now thinking along somewhat similar lines. The time may now be appropriate for rather detailed and explicit discussion of the concept that counseling is a learning experience, or if one prefers to state the matter in reverse, the concept that instruction may well draw upon and utilize the procedures of counseling which is largely client-centered along the lines of the classroom method advocated by Cantor (*3*).

If one inquires into the history of counseling in the United States, he will note that this kind of service developed later than, and somewhat aside from, the instructional program. In the earlier stages of personnel work, it was thought that counseling should help solve students' personal and vocational problems that interfered with learning but that the function of counseling was different from that of instruction. Thus an unfortunate dualism developed, with counseling in a secondary and often definitely subordinate position in relation to instruction.

As personnel work has matured, however, and as the aims and processes of education have, at the same time, been reëxamined, it has become increasingly clear that, when the objectives of education are stated and analyzed, the important objectives stress the growth and development of the individual and draw upon principles of guidance as fully as they do upon principles of learning. The ultimate purposes of counselors and teachers are not only similar, they are virtually identical. Not only do the aims of instruction and counseling coincide, but their processes likewise have identical elements. The classroom furnishes an important environment for the appraisal of the individual, for his character development, and for his formulation of life goals. Similarly, the educational possibilities of the personnel program—health, social adjustment, group activities, vocational exploration, and so forth—are almost unlimited.

While emphasis will properly be determined by the primary responsibility of the individual staff member, to an increasing degree the activities of instructors are taking on the functions of both instruction and personnel work without changing appreciably the fundamental long-term educational goals.

Counseling is the central process by means of which guidance of the individual student is carried on. Counseling lends meaning and purpose to guidance. The most important long-term purpose of counseling is to improve individual adjustment and self-reliance on the part of the counselee so that he will develop increasing ability to solve his own problems. This is also a major aim of teaching.

It should be emphasized that a great deal of learning necessarily takes place before counseling can be carried to a successful conclusion. Counseling is a learning experience for both the counselor and the counselee. Let us first consider the kinds of learning that are required of the counselor.

## THE COUNSELOR'S LEARNING

*The counselor must, in the first place, acquire what is often a new set of attitudes toward the counseling function.* A new counselor, or one who is preparing for counseling either through graduate courses or through in-service training, usually undergoes this kind of experience. Often his first inclination, particularly if he enters the field of counseling after experience as an instructor, is to assume a somewhat directive and dominating role in his relationship with his counselees. This tendency is increased by the fact that many students who turn to the counselor for assistance expect him to assume this kind of role and almost thrust it upon him.

The counselor usually finds, however, that he is able to make a larger contribution to individual development if he plays a secondary role or if, at any rate, he is willing to meet the counselee on an equal footing. Thus the counselor gradually relinquishes his earlier concepts concerning his relationship with students and replaces them as time goes on with concepts and attitudes more appropriate to the counseling situation.

*The counselor must, in the second place, learn a variety of techniques for the collection and summariza-*

*tion of information about individuals.* He needs to learn the nature and purposes, the uses and limitations, of the main counseling tools and tests, and to acquire much information concerning, and experience with, a number of specific tests of each kind. For instance, it is generally assumed that a counselor of school or college students will be intimately acquainted with such common and widely used measures as the American Council on Education Psychological Examination, the Ohio State University Psychological Test, the Otis Self-Administering Test of Mental Ability, the California Test of Mental Maturity, the Iowa Silent Reading Tests, the Diagnostic Reading Tests, the Cooperative English Test, the Cooperative General Culture Test, the Differential Aptitude Tests, the Strong Vocational Interest Blank, the Kuder Preference Records—Vocational and Personal, the Minnesota Multiphasic Personality Inventory, and many other instruments for the measurement of mental ability, achievement, aptitudes, interests, and personal qualities.

The counselor needs to learn how to choose tests that are appropriate for a given measurement situation, either group or individual. For instance, assume that a student has sought the advice of his counselor because of uncertainty with regard to vocational goals. If it develops in the interview that testing is needed and mutually agreed upon, the counselor will probably find it desirable to begin with an instrument which measures interests in broad fields and to follow this measure up with tests of aptitude in areas where the greatest concentration of interests appears to be or to employ portions of an aptitude test battery such as the Flanagan Aptitude Classification Tests.

It is necessary, too, for the counselor to learn about less formal procedures for collecting information—anecdotal records, self-inventories of personal qualities, and even projective techniques, such as the Thematic Apperception Test and the Rorschach, although the use of the last instrument calls for intensive training which many counselors have not had an opportunity to obtain. It is desirable for the counselor to learn thoroughly the technique of writing and summarizing anecdotal records and of training others to prepare records of this kind.

The counselor must learn how to bring all these kinds of information together on cumulative records and how to interpret each record in terms of the growth of the individual as well as his status.

*In the third place, the counselor must learn the technique of the interview.* He needs to know how to use the interview for various purposes: to collect information, to give information, to maintain personal contact with counselees and give them an opportunity to raise questions, to uncover problems, and to consult with counselees about educational, vocational, and personal problems. The counselor must learn to adapt interview techniques so that they are suited to his own personality rather than copied from someone else, however successful the other person may be. He needs to know how to put the counselee at ease gracefully and, at the same time, get down to the business of the interview without loss of time. He needs to learn how to encourage an out-going attitude and a tendency to take the lead on the part of the counselee and, at the same time, to keep control of the interview so that it does not degenerate into an aimless discussion.

In the case of counselee-initiated interviews, the counselor must learn how to "size up" the motives of the counselee and to sense whether the problem which the counselee first brings up is the main one or whether the problem is only a kind of trial balloon which the counselee sends up while he is deciding and mustering his courage to begin talking about the real problem. The manner and understanding of the counselor may determine whether or not the counselee will bring the real problem out into the open at all.

The following are among the more important suggestions that the counselor may well keep in mind in learning interview techniques:

Form the habit of preparing carefully for each regularly scheduled interview. Go over the counselee's cumulative record with care beforehand. Pay particular attention to evidences of growth. However, do not let the habit of careful preparation interfere with the need to see counselees immediately when they bring pressing problems for discussion.

At the beginning of the interview, take a few moments to establish rapport but maintain a businesslike atmosphere and get on with the main purpose of the interview without loss of time.

Encourage the counselee to do most of the talking. If the counselee expresses himself fully, the counselor's opportunity to learn about him and his problems is increased, and often the counselee begins to achieve insight through his own self-expression. At the same time, the counselor should not hesitate to enter into the interview where he can contribute to the counselee's thinking and where this seems necessary in order to bring the discussion back on the main track.

Take a sympathetic and understanding attitude but maintain an objective point of view. Help the counselee to understand and to keep clearly in mind that he himself has main responsibility for the solution of his problem.

Toward the end of the interview, summarize the discussion and help the counselee identify the essentials of his problem and plan a course of action. This plan-

ning should be a coöperative procedure between the counselor and the counselee.

End the interview on as constructive a note as circumstances permit. Either schedule a follow-up interview or leave the door open for future counseling interviews at the discretion of the counselee.

*In the fourth place, and most important, counseling is a learning experience for the counselor in the sense that he must strive constantly throughout the counseling process to learn everything he can about the individual counselee.* It is a long-standing and somewhat shopworn axiom of individualized education that "before you teach a pupil you must first learn him." Similarly, before you counsel a student you must first learn as much as you can about the kind of individual he is. This learning comes about through a study of the individual's background, through reports of other instructors, both oral and written, through additions to and interpretation of items in the individual's cumulative record, through interviews with the student, and on occasion, with his parents, and at times through staff conferences where all available information about the individual is pooled and interpreted. Learning about the individual also takes place in successive interviews during the counseling process. Oftentimes, counseling and diagnosis, or learning about the counselee, go forward together.

Except in rare cases where the finding of an immediate answer for crucial problems outweighs everything else, the growth and self-improvement of the counselee is a more important consideration than questions which are raised by either the counselor or the counselee as the immediate subject of counseling. The counselor must learn patience. He must restrain his natural impulse to show the student at once what the counselor believes to be the right way. Time must be allowed for the counselor to study the counselee, for the counselee to study himself, and for decisions to mature.

## THE COUNSELEE'S LEARNING

Now let us examine the learning process of the counselee—that is, the student's learning in a counseling situation.

The process of learning on the part of the counselee is even more extensive than that of the counselor, and in some respects, the two are parallel. *At the outset, the counselee, like the counselor, needs to learn a new set of attitudes.* The counselee is likely, in the beginning, to think of the counselor either as a minor disciplinarian who will call him in for a serious talk if he gets into trouble or as a person to whom he can go with a problem and quickly obtain a ready-made solution. It is necessary for him to learn that, as a rule, the counselor has no disciplinary function and also that the counselor is not a trouble shooter who will listen to a student's tale of his difficulties and then come up with a quick answer.

At first, the counselee tends to think of the counselor as one who *advises* rather than *counsels.* He may go to the counselor, state a problem which is troubling him, and then in effect say, "Well, there it is. What do I do now? Your business is to advise students, isn't it?" He will learn that a wise and well-trained counselor does not allow himself to make the counselee's problems his own or to become emotionally involved with the counselee, but instead uses his experience and training in helping the counselee think through his problem and work out his own solution. He will discover that the counselor because of his greater knowledge and experience is ready and able to make suggestions at appropriate points and even guide the counselee's thinking at times, but that he never, or almost never, tells the counselee exactly what to do. At first, the counselee may find this a new and perhaps baffling concept of the counseling relationship, and it is only through personal experience that he learns that this is the best way.

*A second area of learning for a student who is introduced to a personnel program has to do with certain procedures carried on in a group.* He is likely to come into contact with these procedures soon after he enters the institution. In a strict sense, these group relationships are not counseling at all, for counseling ordinarily takes place where just two individuals—the counselor and a single counselee—are involved. Group guidance, or group learning, however, is closely related to counseling in that the group work will meet certain general problems of many of the students and thus reduce the need for individual counseling.

Among the kinds of group work which provide learning situations for counselees are meetings to orient them to the life of the institution, courses providing orientation and exploration in the field of the vocations, and courses of training in study habits and skills, including corrective reading for individuals who are retarded in reading ability.

Many students need special help with the development of efficient study procedures and with the elementary processes of English expression, arithmetic, and spelling, which ought to have been learned much earlier. It is in reading, however, that the need is particularly acute. Ability to read well is essential to adjustment to all educational levels above the primary grades. Knowledge of and facility in work-type reading skills grow in importance as the student advances through the school until at the college and adult levels these are among the first essentials for the mastery of an educational program. A

student whose reading is markedly retarded will almost inevitably have problems of personal and social adjustment. Similarly, a student who is emotionally maladjusted may have reading difficulties on that account. A reading specialist coöperating in the counseling program can do much to help solve some of the more difficult adjustment cases.

*A third area of learning for the counselee has to do with the meaning of various kinds of appraisal devices that are used with him.* He needs to learn what tests of intelligence, achievement, interests, and personal qualities are designed to do and to understand that the results of these measures are useful in counseling him only if he gives full coöperation and follows all instructions faithfully when they are administered to him. He needs to learn the meaning of such concepts as Scaled Scores and percentiles. Even percentiles, which are perhaps the simplest basis for acquainting counselees with their test results, are often misunderstood because they are confused with percentage grades.

The counselee needs to learn the uses and limitations of tests of specific aptitudes and inventories of interests and personality. Results of measures of interests, for example, are nearly always regarded by counselees as indicative of aptitude unless the difference is carefully explained to them.

Further, the counselee needs to understand how his entries on his cumulative record are interrelated and how they provide a continuing picture of his growth and development. If his test results are recorded cumulatively in graphic form, a careful explanation of the basis of the graph is required. While certain concepts important for the test specialist, such as standard errors of scores and the effect of regression on test results, can hardly be made explicit for the average counselee, still he can with practice acquire a reasonably effective understanding of the interpretation of his own record and an understanding of the need for considering these data in relation to the other information on his cumulative record.

*A fourth area of learning, and the most important of these, is the student himself.* Through interviews with his counselor the student can clarify his own self-concept and by means of available measures he can check various aspects of this concept quantitatively. He needs to assess as objectively as possible his general ability, his special aptitudes, his achievement in different areas of study, his interests, and his personal qualities. Senior high school pupils and college students should have access to their own test results (with the possible exception of IQ's and data on clinical measures in the field of personality), and they should have ample opportunity to learn through discussion with their counselor the interpretation of the test information about themselves. In this connection, it should be kept in mind by both the counselor and the counselee that national norms may not be as appropriate a basis for interpretation as norms derived for different educational or occupational groups.

The counselee's learning about himself is a continuous process and is, of course, the key to all intelligent long-term planning.

*Finally, counseling is a learning function because, if it is successfully carried on, the counselee learns a new way of thinking about himself and about his problems and plans.* He learns to weigh evidence concerning himself and the possibilities open to him impersonally, to reach his own decisions, if not independently at least with full understanding that they are *his* decisions, and to act upon these decisions in a mature manner. If counselors succeed in leading their counselees to adopt this kind of behavior habitually in reaching decisions and to carry such behavior over into later life, this accomplishment alone will make counseling one of the most important of all the learning experiences educational institutions provide for their students.

In conclusion, it is hoped that this discussion will help teacher-counselors appreciate that counseling is basically a learning function, subject in large measure to the same laws of learning which are applicable in the classroom. This view of counseling will remove much of the vagueness and mystery from counseling activities and will naturally and inevitably lead to the integration of these activities with the instructional program of the institution.

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CHAPTER XX

# *Group Work in Guidance*

THE MAIN EMPHASIS IN THIS BOOK IS UPON guidance of the *individual,* as it must be in any serious discussion of guidance services. In the totality of his aptitudes, experience, environment, understandings, emotional needs and drives, and aspirations, each individual is a unique entity which finds no exact counterpart in any other individual. An intelligent personnel program can never lose sight of this uniqueness.

Yet, individuals have much in common. Young people of the same age and grade level, living in the same community, are alike in many ways. They have shared numerous experiences together, their lives are to some extent molded by similar environmental influences, and they are concerned with many of the same problems. And subgroups, determined on the basis of sex, interests, vocational goals, or a variety of other factors, consist of individuals who are still more alike than young people in general. Guidance workers need to be aware of these common denominators which help to determine natural groupings and to take advantage of them.

## GROWING ATTENTION TO GROUP GUIDANCE

Although some group guidance activities have been carried on ever since guidance services were begun in schools, attention to group work has increased in recent years. Periodic summaries of the literature carried on during the last ten or twelve years, such as those in the *Review of Educational Research,* list numerous articles and monographs on group guidance and group therapy. According to Koile (40), group activities are probably the most prevalent guidance services in today's schools. Colleges may have less interest in group guidance, as suggested in a report of a survey by Headley (27), but even so a considerable number of reports of group work at the college level have been made available. It is obvious, of course, that certain aspects of the college environment, such as residence halls, furnish a ready-made environment for a variety of group activities, but especially at the secondary school level many kinds of experiments in group guidance are blossoming in abundance.

## WHY GROUP GUIDANCE?

*An important reason* why there is so much attention to group work in guidance is, of course, that it saves time in dealing with matters that are common to the pupils. In many schools, understaffed guidance services are overburdened with an ever-growing number of counselees, and guidance functionaries see no possibility of handling all problems through individual counseling. Often they are driven, out of sheer necessity, to carry on some of their guidance activities with groups, regardless of their own judgment concerning the relative merits of individual and group work. For instance, Hobbs (31) has called attention to the advisability of using group therapeutic methods because of the small number of trained workers available to aid the many persons needing their services.

*A second reason* is that group work is naturally suited to certain kinds of guidance activity, particularly those which are basically instructional in character, such as the furnishing of information about occupations or helping new students learn about the school. The need for individual instruction is no greater under these conditions than it is in algebra or general science, but in both kinds of situations individual attention is frequently called for within the framework of the group.

*A third reason,* as Woolf and Woolf (97) have pointed out, is that a group approach helps an individual to discover that others have needs and problems similar to his. Moreover, as mentioned by Hoppock (32), group guidance focuses collective attention on common problems, and thus it may help an individual more readily find a

solution for a problem than he could if he went at it alone, even when under the guidance of a friendly, permissive counselor.

*A fourth reason* for group guidance is that it may be used to prepare the way for individual counseling. Rapport may be more readily established with a student, and his understanding quickened, if he is oriented through group procedures before individual counseling is begun. In a controlled study carried on by Richardson and Borow (69), for example, individual counseling following group orientation was compared with individual counseling not preceded by group orientation, and the results favored the oriented group on 19 of 25 criteria, and the differences on 6 of these were statistically significant.

All the reasons for group guidance thus far mentioned stress the value of group work as a substitute for or an aid to individual guidance. But there is a *fifth reason* for group work, which in the view of many psychologists justifies group activity in its own right. These workers stress the therapeutic character of discussion and thinking and search for values within a group of one's own peers. Here the focus is not upon information but upon attitudes, emotions, motivations, self-concepts, and the whole range of personality qualities. This is peculiarly the habitat and the happy experimental ground of group psychotherapy, sociometry, psychodrama, sociodrama, and group dynamics. No one can quite say what is coming forth of demonstrated vålue, but the vocabulary of this area is expansive and impressive, and the possibilities are intriguing.

The reason the possibilities are intriguing is that they hold out some promise that group work in guidance, expertly carried on, is not merely a short cut, a makeshift, a substitute for individual counseling, but a new thing, a self-justifying entity, a unique contribution, a complement to individual work. A good deal more research will be needed before one can say just how rosy this particular horizon is.

While there is, for all these reasons and others, a generally favorable attitude toward making the most of group work in guidance, occasional current commentary on the place of group guidance in our schools is somewhat less than enthusiastic. For example, Koile (40), in the article mentioned earlier in this chapter, recognizes the worth of group guidance objectives and procedures, but he regrets that we have in our schools a dual program of group work—group guidance and classroom instruction. He urges that the aims and functions of group activities in guidance be incorporated into a more adequate concept and practice of instruction. He believes that if this were done there would be no need for activities called "group guidance." If there were wide acceptance of this viewpoint and an attempt to apply it, this would seem to imply the development of a new and vigorous program of education in teacher-training institutions.

## THE STATUS OF GROUP WORK IN GUIDANCE

### ASSUMED VALUES

Although group procedures are widely used in guidance programs, the values of these procedures are, for the most part, assumed rather than demonstrated. A statement made by Hoppock in his book several years ago is still applicable today: "Up to the present time, most of what has been done in group guidance has been done because it seemed like a good idea. Only in rare instances has anyone attempted to find out whether or not the anticipated results were in fact achieved" (32:157).

The fact that the worth of group work in guidance is not established by extensive research does not, however, set group guidance off from individual counseling. Most of what is done in the guidance field arises out of a combination of reasoning and faith rather than out of certain knowledge that these particular procedures are beneficial to either the individual or the group.

But it may appropriately be pointed out that the opportunities for research on the outcomes of group guidance are probably superior to those for research on the values of individual counseling. Statistical techniques are more readily applied to the group than to the individual. That full advantage is not being taken of these opportunities is brought out by reviews of research on group procedures in guidance published during the past dozen years (1, 19, 45, 79, 87). All call attention to the dearth of research in this area and make suggestions concerning kinds of research that can profitably be conducted.

### CONFUSION IN TERMINOLOGY

As is often true of a field experiencing growing pains, there is lack of clarity in the terminology applied to different kinds of group work in guidance. In some places, the group work is called "group counseling," although specialists in the field tend to be critical of this term, since counseling is characteristically a relationship between two individuals—a counselor and a counselee. The term "group guidance" is more generally accepted, and is, in fact, accepted and used in this chapter, although strictly speaking this term is likewise something of a misnomer, since the objectives of the group work are seldom the guidance of a *group* but rather that of the *individuals* within a group. Froehlich (18) proposed the term "multiple counseling," and sponsored some research

along this line, as will be noted in another section of this chapter.

Due in part to the entrance of increasing numbers of clinical psychologists into the guidance field, there have recently been many references to "group therapy" in guidance. Just where "group guidance" leaves off and "group therapy" begins is anyone's guess. There is, of course, no clear dividing line between the two, although there are differences in comprehensiveness and in emphasis. As Redl (64) has pointed out, the use of the term "group therapy" requires recognition of a psychology of group life. There would probably be general agreement with the viewpoint of Lifton that group therapy in an educational setting may be considered to be operating in any group where the *emphasis* is upon providing members of the group with opportunities to explore their own feelings and attitudes, rather than upon the imparting of information (45:156). This emphasis is also present in group guidance, although probably not to the same degree. Group guidance may be regarded as standing between classroom instruction and group therapy and as sharing the purposes and procedures of both.

Along with group therapy, "group dynamics" is another term somewhat foreign to the everyday language of guidance. Not only so, but group dynamics carries within its field other new terms which are peculiarly its own, such as "syntality" (group personality) and "synergy" (total energy of the group).

Again, a statement by Lifton tends to clear the air for the average counselor in that it helps to dispel the semantic fog surrounding the counselor's attempts to differentiate between "group therapy" and "group dynamics."

> One solution to the semantic difficulties involved in distinguishing between "group dynamics" and "group therapy" might be to reserve the former term for those processes employed to assist a group to achieve goals outside the group itself. In this setting, the needs of individuals become subservient to the goals of the group. "Group therapy" would then cover those groups which are designed as a means through which people's needs and attitudes could be expressed. The therapy group would serve only as a vehicle for an individual's clarification of his own ideas and values as he tries them out on his peers (45:158).

As an overall term embracing the entire field under discussion, the phrase "group work in guidance" would seem to be inclusive enough and innocuous enough to satisfy almost everyone.

## GENERAL PURPOSES OF GROUP WORK

The purposes of group work in guidance are of four main kinds. All of these were mentioned earlier in this chapter, but it may be worth while to list them in a more definite way.

One important purpose is the *orientation* of individuals to an unfamiliar environment or to new experiences. For a good many years, both colleges and large secondary schools have made use of a carefully planned program of orientation of new students to the institution, and the major part of such a program is handled on a group basis. "Freshman orientation week" has long been a familiar term in high schools and colleges. Largely through group meetings, new students are introduced to the physical plant, courses of study, rules, and customs of the institution. This is a worth-while guidance purpose in which the administrative and counseling functionaries of the school coöperate.

Orientation toward different areas is also carried on through group work in guidance throughout the school year. By this means, students are often introduced to the wide variety of educational opportunities available after high school graduation and to the logical order that may be discerned in what is otherwise an extremely complex and confusing vocational world.

A second, and closely related, purpose of group work is the provision of *learning experiences* which are, or at any rate which may be, somewhat different from the learning experiences of the curriculum of the school. These may be closely related to the regular classroom, but are often apart from it. Among the purposes in this kind of group work in guidance are the development of more efficient study procedures, understanding of the use of the library, the study of opportunities afforded by different colleges to which the school sends its graduates, and exploration of some of the occupations in which there is a large amount of common interest.

A third purpose of group work is the setting of a *background for individual counseling*. An individual may be more ready to recognize the need for counseling and to seek the counselor's help if he is in a group where problems similar to his are objectively discussed. Or the nature of tests and the meaning of test results may be explained and discussed in guidance groups so that when a pupil has an interview with his counselor to consider what his own test results mean in terms of educational and vocational plans, a good deal of time may be saved in getting down to the business of the conference. Or pupils may in a group situation check themselves on a self-inventory of personal qualities, after which they may be invited to see their counselor individually about any items in the inventory which they would like to discuss so far as these items are of personal concern to them. The group may be used in many other ways to set the stage for individual work.

The last purpose of guidance group work to be listed

here is *adjustment and therapy.* While this area is often regarded as the particular prerogative of individual counseling, in many cases an approach to it may more readily be made through the group. Acceptance of the fact that one has a problem with which help is needed may grow out of group discussions, and sometimes group activities, particularly in connection with the extracurriculum, may help to resolve personal difficulties.

As pointed out by Gorlow, Hoch, and Telschow (21), some authorities emphasize therapy *in a group* through the insight and effort of the group leader, while others emphasize therapy *by the group.* These, of course, are not necessarily unrelated. Although the intention may be to stress one kind of therapy or the other, both may operate in the same group situation with different individuals or even with the same individual.

## AVENUES OF GROUP WORK: LEARNING

The general means of group work in guidance are those which are designed as learning situations, those where student activity is the predominant characteristic, and those centered on adjustment or therapy. These overlap and merge into one another, but certain kinds of group work may be identified and described within each of these areas.

### REGULAR ACADEMIC CLASSES

A large amount of guidance takes place, and has always taken place, incidentally in classrooms. Regardless of their philosophy of education, most teachers in elementary and secondary schools are not concerned with subject matter alone but are interested in their pupils as persons. Many of them purposely find opportunities to use the classroom as a means of guidance even though they may not think of themselves as guidance functionaries.

English literature, for example, affords innumerable opportunities for the discussion of personal adjustment, moral values, and interpersonal relations in an objective way, since attention is centered upon characters in fiction and not upon the immediate problems of the persons in the class.

In science, the social implications of atomic energy and other new developments may be brought out in such a way that they tend to promote new concepts of social responsibility on the part of the individuals in the group. Social studies classes provide an almost unlimited field for guidance in intergroup relations and in the development of attitudes toward virtually all social institutions. Even in such an impersonal field as mathematics, there are group guidance possibilities, as, for example, through the provision of information on the kinds of vocational opportunities available to persons with thorough mathematical training.

The classroom is, in fact, an almost ideal ready-made group guidance laboratory. The main obstacle to greater use of the classroom in guidance is shortcomings in teacher personnel. For the most part, teachers need a more extensive background in psychology and greater understanding of the psychology of the group if they are to take advantage of the opportunities to perform guidance activities in such a way that this work will be merged with instruction and make for effective learning.

### THE HOMEROOM

For years, the homeroom type of organization has been common in hundreds of high schools, and in many of these it is the principal unit of group guidance. This kind of organization of group guidance services presupposes interest in and training for guidance on the part of all teachers in the school. Where this supposition becomes an actuality, the homeroom may be a very effective basis of group work. In the usual school situation, however, there is likely to be rather wide variation in the guidance values individual pupils obtain from their homerooms, depending upon the personality, ability, and training of their homeroom teacher.

In recent years, the homeroom has come in for a good deal of criticism, partly because too often its main purpose seems to be to serve administrative convenience in the making of announcements, taking attendance, and so forth, rather than to serve guidance purposes. McFarland (51) described the five main causes for lack of effectiveness of the homeroom as lack of time, failure to understand the purposes of the homeroom, indifference of teachers, lack of trained personnel, and inadequate program planning, and he suggested ways of improvement. In a report of a survey of 268 secondary schools, McCorkle and O'Dea (50) furnished information on problems of making the homeroom more effective in guidance.

Homeroom teachers have an especially favorable opportunity to know their pupils thoroughly. Sachs (74) found that homeroom teachers possessed more information about pupils than did teacher-counselors and had better rapport with them. Similarly, Wagner (86) found that homerooms were making an effective contribution to desirable relationships between pupils and teachers, but that there was much need for better organization of the group guidance content of homerooms.

There are various publications which are designed to help homeroom teachers do a better job. Among these, a *Handbook for Homeroom Guidance,* prepared by Ross (73) out of her own experience, is full of practical suggestions for developing homeroom spirit, for organizing the homeroom under student officers, for group programs, and for individual counseling within the framework of the homeroom.

### COURSES IN OCCUPATIONS AND CAREER CONFERENCES

Courses designed to provide information about a wide variety of occupations and to give pupils opportunities to make exploratory studies of occupations of particular interest to them are among the more obvious means of group guidance at the secondary school level. This kind of course is given various titles, such as "occupations," "life careers," or "self-appraisal course." According to a survey by Rice (68), the occupations course is taught in all 48 states, although the percentage of students enrolled is rather small.

The occupations course may be offered on a noncredit basis, but it is preferably a credit course which is given standing equivalent to that of the other courses and which is financed out of the school's instructional budget. It ought to be taught by a member of the faculty who has had work experience and who is willing to keep abreast of current developments in the vocational field.

Basic materials for the occupations course include those by Forrester (17) and Greenleaf (23), the *Dictionary of Occupational Titles* (14), and films setting forth the essentials of different occupations.

In connection with many courses in occupations, the practice is followed of having representatives of different occupations in the community speak to the class, although the value of this procedure is likely to vary a good deal, since not every representative of his field is an effective speaker.

Career conferences or career days constitute a somewhat similar kind of group work in guidance. As mentioned in Chapter III, the career conference is now an annual event in a good many high schools. It is a carefully planned series of meetings intended to give pupils information which will help them plan their educational and vocational future. It may involve all pupils in the secondary school and may make extensive use of outside speakers.

### GROUP VISITS

Visits and trips to local industrial establishments and to other places of interest form another common means of guidance through groups. These may be planned in connection with the course in occupations or other classes or they may be separately organized. Schools occasionally sponsor extensive summer trips for older students which have both educational and guidance values.

### CASE CONFERENCES

A fifth frequently used means of group work is the case conference. The purposes of this kind of procedure are partly learning and partly adjustment. The usual procedure is to outline for the group a case involving a problem or a set of problems of a hypothetical young person and to initiate discussion of the case leading to proposed solutions and considerations of these proposals.

In the course of discussion, some individuals may identify themselves with the case or may see applications of certain aspects to difficulties of their own. Among the materials suitable for this kind of guidance meeting, *Case Conference Problems in Group Guidance,* by the late Richard D. Allen (2), has been an especially widely used guide.

## AVENUES OF GROUP WORK: STUDENT ACTIVITY

Often the student activity program of a school is carried on without clear perception of the relation between the student activities and the guidance services of the institution. Some years ago, Williamson (92) called attention to the need for better recognition of the role of directors of activities in well-balanced programs of personnel work.

### EXTRACURRICULUM ACTIVITIES

In many schools the activities outside the regular curriculum too often go on in a haphazard manner without any conscious attempt to integrate them into a planned personnel program. This is still true, notwithstanding the fact that for years it has been recognized that there is a need for improved administrative and faculty attitude toward the extracurriculum and for coördinating academic and nonacademic experiences, as evidenced by the writings of Charters and Harvey (12), Gjerde and Alcorn (20), Johnson (38), Terry and Olson (81), and others.

The characteristics of the extracurriculum that make it potentially so effective in the total program of guidance are that it is an *active* process, that many aspects, such as clubs, are largely *student* initiated and carried forward, and that opportunities for *freedom of expression,* with a

minimum of adult supervision, are present. Club advisers and athletic coaches have especially favorable opportunities to make the work they do with groups serve guidance purposes.

Since participation in extracurriculum activities is largely voluntary, except for a requirement, perhaps, that everyone take part in at least one activity, there is a constant need for motivating a larger amount of participation. In this connection, Anderson (3) described a successful experiment in which activity periods were staggered through the high school day instead of concentrating them in the late afternoon hours.

### RESIDENCE HALLS

Dormitories and residence halls have long been recognized as a natural basis of group work in personnel services at the college level and in boarding schools at the secondary and elementary school levels. The contributions of the college residence hall, particularly in human relations, were described by Thompson (83), who discussed processes in group living, which, she felt, produced democratic values.

Under an enlightened institutional administrative system, residence halls are largely student governed and organized, and they afford a variety of opportunities for orientation, for furnishing information, for providing a setting for individual counseling, and for personal growth. Omer (58) prepared a handbook in which she discussed residence halls as laboratories of work at Stephens College, outlined the work of the residence counselor, described techniques for implementing major functions, including group guidance techniques, and gave an evaluation of the program.

Fraternities and sororities, of course, present many of the same opportunities as residence halls for group personnel work at the college level. A still more inclusive unit which has similar advantages is the student union, or community center, which is also found in some of the larger secondary schools. Humphreys (36) described some going programs of student unions and discussed the significance of these centers of the life of an educational institution.

### SOCIOMETRIC TECHNIQUES

In Chapter IX, sociometric techniques were discussed from the standpoint of their contribution to evaluation, but these procedures are equally important, or perhaps more important, as ways of bringing about better adjustment of individuals within the group. They help the pupils express and make definite their preferences among their classmates and help certain group patterns to emerge so that the teacher's, or guidance leader's, understanding of the relative social adjustment and security of the pupils in his guidance group is increased (*15*).

## AVENUES OF GROUP WORK: ADJUSTMENT AND PSYCHOTHERAPY

The means of group guidance which are aimed primarily at adjustment and therapy are still evolving, but a number of these have been used enough to warrant an attempt to identify and describe them.

### MULTIPLE COUNSELING

As mentioned earlier in the chapter, Froehlich (*18*) has used the term "multiple counseling" to designate situations in which a counselor works simultaneously with several counselees. The work takes place in the framework of the group, yet the individual is constantly kept in mind. Driver (*16*) carried on a series of three experiments in which she attempted to evaluate multiple counseling as used with groups of high school pupils and university students. There were eight groups which were organized around a problem or interest which was common to the members of the group. Almost all the persons in her groups felt that multiple counseling was enjoyable and worth while. Individual counseling was used to complement the group sessions. The multiple counseling appeared to facilitate rapport and make the individual counseling more efficient.

### CHECKLISTS AND INVENTORIES

Another means of fostering adjustment is through the use of checklists and inventories which are administered in a group in order to identify problems which may serve as a basis of individual counseling and of group discussion in general terms without relating these problems specifically to any one individual. Three such instruments are the Mooney Problem Check List (55), the SRA Youth Inventory (66), and the SRA Junior Inventory (65). All three were described in Chapter IX. To recapitulate the information given for one of these instruments, it will be recalled that the SRA Youth Inventory, which grew out of the Purdue University Opinion Panel for Young People, covers the following problem areas: my school, looking ahead, about myself, getting along with others, my home and family, boy meets girl, health, and things in general. There is also a Basic Difficulty Key which is designed to indicate the problems that may be symptomatic of serious personality difficulties. A care-

fully prepared manual is available to assist the counselor in the interpretation and use of the inventory scores.

### PSYCHODRAMA AND SOCIODRAMA

The therapeutic and cathartic values of role playing and the dramatization of problem situations as represented in the psychodrama and the sociodrama were urged upon American psychologists and educators by Moreno (56), a Viennese psychologist who came to this country some 20 years ago. The principles of sociodrama as derived from Moreno's experimental work were explained by Jennings (37) who showed how the method could be used in the classroom. She stressed particularly the need for a warming-up period, for respect for the individual pupils' areas of reticence, and for a graduated sequence of situations, and advised extensive use of the social-laboratory conditions present in every classroom.

Thus far, the techniques of the psychodrama and the sociodrama seem to have been used more with groups of pupils having serious emotional problems than with "normal" groups. It is possible, however, that these procedures will gradually come to play a larger part in the usual school situation. Some years ago, Slavson (77) indicated that there was growing acceptance of Moreno's position that group therapeutic procedures are not merely expedients or substitutes for individual therapy but can stand on their own merits as treatments yielding values which may not be attained through individual methods.

But this remains a major question. As Lifton (45) has pointed out, the relationship of group therapy to the normal person still needs to be more clearly defined, for if it is defined as a specified treatment for psychologically disturbed persons, the number of institutions and individuals interested and engaged in group therapy will almost certainly be very limited.

### GROUP PSYCHOTHERAPY

As indicated earlier, group therapy is not a very precise term, for it has been used in different ways by different workers. However, the basic procedure which seems to characterize such efforts is to stimulate free expression on the part of members of the group concerning a common problem and to develop and nurture a nondirective, permissive atmosphere which will encourage spontaneous verbalization and discussion freed as far as possible from inhibitions that might result from value judgments on the part of the guidance worker. There seems to be a relation between the extent and pattern of verbal expression and the outcome of this kind of therapy. This relationship was investigated by Peres (60), who found decided differences between the patterns of conversation for those who were benefited and those who were not benefited. He also reported an increase in the value of the group work for the benefited group after the therapy was concluded.

Evidence of the value of permissive group therapy has been obtained in various other studies, such as one by Rashkis and Shaskan (63), who used permissive group psychotherapy with 22 neuropsychiatric battle casualties. The MMPI was applied before and after therapy, and a reduction was found in the scores on the depression, hysteria, paranoia, and psychasthenia scales.

## NEED FOR EVALUATION OF GROUP WORK IN GUIDANCE

As indicated near the beginning of this chapter, all writers who have taken a broad look at group guidance and group therapy agree upon one point: there is much need for further evaluation of the procedures and contributions of group work to guidance services. Adams, Bennett, Berg, and Johnson (1) classified the needed research into three areas as follows:

1. Analysis of what guidance activities can best be conducted through individual counseling, through general education, and through group instruction.
2. Investigation of requisites as to training, experience, and personal qualities of teachers and personnel workers who participate in group aspects of guidance.
3. Study of contributions of other disciplines, such as group psychotherapy, to the development of more functional group guidance programs.

Notwithstanding the dearth of research results in this area, numerous school and college guidance workers have become convinced out of their own experience that group work has an important place in guidance services. As suggested by Strang and Wollner (79), further improvement of group work will come about through a synthesis of approaches—educational, sociological, psychological, and psychiatric.

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CHAPTER XXI

# *Reading Resources for Guidance Workers*

Contributions to personnel work in schools and colleges are to be found in an extensive body of literature. No guidance worker can be expected to be acquainted with all the books, monographs, and studies that are related to personnel work, but he will be aided materially in meeting the great variety of day-to-day problems of counseling pupils if there is available in the professional library of the school a selected list of reading resources to which he can turn when he does not know the answer to a particular problem.

This chapter represents an attempt to provide such a list. Most of the references chosen were published since World War II, but some materials from the earlier period were included where they seemed particularly significant and useful. No doubt some references fully as worth while as those included escaped attention in the preparation of this reading list. It is believed, however, that the present list would enable a guidance worker to obtain information or expert judgment on almost any question in his field, and for many guidance problems a variety of points of view may be obtained from these reading references.

## CHILD PSYCHOLOGY AND MENTAL HYGIENE

It is highly desirable for everyone who performs counseling functions to have some training in psychology, since he is engaged in a type of work for which a knowledge of psychology is very important.

Regardless of the counselor's professional background in this field, the availability of some of the better reference books in child and adolescent psychology will assist his work, and his library should contain such books.

### CHILD PSYCHOLOGY

For the beginning worker in this field, Strang's *An Introduction to Child Study* (220), which is now in its third edition, is a helpful reference. Jersild's *Child Psychology* (133), now in its fourth edition, has also long been a standard reference. *Child Development,* the book by Olson (178), long a recognized authority on child study, discusses among other topics growth periods and educational programs, human relations in the classroom, the child in home and community, and the teacher in individual and group relationships.

A recent book by Baldwin, *Behavior and Development in Childhood* (12), includes a good, sensible discussion of psychoanalytic theory. Other recent books in this field are Forest's *Child Development* (77), Peck's *Child Psychology: A Dynamic Approach* (179), and Thompson's *Child Psychology: Growth Trends in Psychological Adjustment* (232). Thompson's especially thorough book traces the child's development and adjustment in sensory and perceptual abilities, motor abilities, emotional behavior, language, intellectual abilities, social behavior, and personal and social values.

### ADOLESCENT PSYCHOLOGY

Among the well-known books on adolescent psychology and development is Cole's *Psychology of Adolescence* (43), which deals with physical, emotional, social, moral, and intellectual development. Other recent books dealing with the teen-age period are Horrocks' *The Psy-*

*chology of Adolescence: Behavior and Development* (*128*), Malm and Jamison's *Adolescence* (*163*), and Hurlock's *Adolescent Development* (*130*).

### DYNAMICS OF ADJUSTMENT

Books that go somewhat more directly into the psychology of adjustment than the general texts in child or adolescent psychology are also useful in the counselor's library. The *Dynamics of Human Adjustment,* by Symonds (*225*), is a well-known work on the mechanisms of adjustment. Later books in this area include Anderson's *The Psychology of Development and Personal Adjustment* (*4*), Lindgren's *Psychology of Personal and Social Adjustment* (*156*), and Lehner and Kube's *The Dynamics of Personal Adjustment* (*154*). The general topics covered by Lehner and Kube's book are: why it is important to understand ourselves; origin, nature, and development of emotional and psychological needs; dynamics and principles of adjustment; and goals and processes of improving adjustment. The treatment of frustration, defense mechanisms, neuroses, and psychoses in this book should be particularly helpful to guidance workers in acquiring a background for individual counseling.

### MENTAL HYGIENE

The counselor should be acquainted with the relation of mental hygiene to personal guidance, and although he will find this subject discussed in some of the general references on child and adolescent psychology, several books dealing with mental hygiene can profitably be included in his library. One of the first books planned to aid teachers and counselors in understanding the emotional and personality problems of their pupils and in instituting treatment was Sherman's *Mental Hygiene and Education* (*208*).

The Association for Supervision and Curriculum Development of the National Education Association recognized the importance of this area by devoting its 1950 yearbook to the topic *Fostering Mental Health in Our Schools* (*81*). Recent general treatments which may serve as textbooks for classes or reference books for counselors are Kaplan and Baron's *Mental Hygiene and Life* (*136*), Lindgren's *Mental Hygiene in Education* (*157*), and Schneiders' *Personal Adjustment and Mental Health* (*202*). The book by Kaplan and Baron includes many practical examples from situations drawn from life. Lindgren's book is simple, yet comprehensive, and it shows close acquaintance with school situations, the classroom, and home. It should prove valuable for administrators as well as teachers and counselors.

A small book by Green and Rothenberg, issued under the rather uninspired title, *A Manual of First Aid for Mental Health in Childhood and Adolescence* (*97*), impresses one as very practical and down to earth. Among the topics taken up in the book are first aid in situations which would be disturbing to children, first aid for the child and adolescent displaying delinquent behavior, first aid for the child disturbed by some unexpected or frightening changes in others, first aid for the child in situations related to sex, first aid for the child who is a narcotic addict, and how to obtain professional assistance when necessary.

### EXCEPTIONAL CHILDREN

Most school counselors deal mainly with normal children and young people, but they also need insight into the psychology of exceptional children. Recent comprehensive treatments of this subject have been made available by Baker (*11*) and Cruikshank (*55*). A little book by the internationally known British psychologist, Burt, *The Causes and Treatment of Backwardness* (*34*), provides a nontechnical discussion which teacher-counselors should find helpful. Wallin's recent book, *Education of Mentally Handicapped Children* (*251*), likewise, places emphasis on understanding and helping mentally handicapped children who do not call for clinical treatment.

Assistance in providing for children at the other end of the intelligence scale may be found in a book, *Bright Children,* by Cutts and Moseley (*57*).

The child who is exceptional, not because he is a mental deviate, but because he commits overt acts against society is likely to precipitate crises which his counselor must help to resolve. Books dealing with the child offender or juvenile delinquent from the sociologist's point of view have been made available by Goldberg (*95*), Neumeyer (*175*), and Tappan (*228*).

## CLINICAL COUNSELING AND PSYCHOTHERAPY

In everyday terms, clinical counseling is intensive and frequently long-continued individual counseling which is intended to help the person gain insight into his own problems and grow in understanding so that he will be able to work out an adjustment that he finds satisfying and that is socially desirable. Most guidance problems do not call for the intensity and depth of treatment that would place them in the clinical-counseling category. But when instances requiring clinical counseling do arise, the way the guidance worker handles these

is very important. Much has been written about clinical counseling and psychotherapy during the last 10 or 15 years. Some of the more important books are included in this section.

Williamson's *How to Counsel Students* (*261*) was one of the first thorough treatments of counseling of college students. Part I of this book has been revised and published under the title *Counseling Adolescents* (*263*). Williamson's approach to counseling is that of a scientific worker, and his philosophy and procedures are somewhat more on the directive side than those of certain other clinical counselors.

The English translation of Freud's *A General Introduction to Psychoanalysis* (*83*) is helpful in gaining an understanding of the historical background of nondirective therapy. Rogers, whose book *Counseling and Psychotherapy* (*193*), published in 1942, was the first comprehensive presentation of his nondirective or client-centered point of view, carried his work forward in his book, *Client-centered Therapy* (*194*), published in 1951. Rogers, in coöperation with Dymond, reported research work in client-centered counseling at the University of Chicago Counseling Center under the title, *Psychotherapy and Personality Change* (*195*). Other fairly recent books on therapeutic counseling are those of Porter (*181*), Slavson (*210*), Gordon Hamilton (*111*), and Kenneth W. Hamilton (*112*). Slavson illustrated the treatment in his book with a number of case studies from a child guidance clinic. Three doctoral dissertations based on the same body of data were reported by Gorlow, Hoch, and Telschow, under the title *The Nature of Nondirective Group Psychotherapy* (*96*).

The technique of the interview in counseling was dealt with at length some years ago by Bingham and Moore in their book, *How to Interview* (*21*) and more recently by Erickson in a book, *The Counseling Interview* (*72*), which recognizes both directive and nondirective procedures.

A book by Alexander, French, Bacon, and others (*1*) proposed less complexity and more flexibility in psychoanalytic therapy so that this technique would be of greater usefulness to teachers and counselors.

An eclectic viewpoint in counseling is presented in books by Thorne (*237*) and Hahn and Maclean (*110*). Thorne regards therapy as directed toward the replacement of emotional-compulsive behavior with deliberate rational-adaptative behavior growing out of emphasis on intellectual resources. Similarly, Pepinsky and Pepinsky (*180*) present counseling as a learning situation for bringing about personality growth and adjustment.

Another authoritative new book in this field is *Psychological Counseling* by Bordin (*23*). A variety of viewpoints on clinical counseling is presented in a collection of articles from psychological journals in *Readings in the Clinical Method in Psychology* by Watson (*255*).

Since counselors occasionally find it necessary to refer involved and difficult cases for psychiatric attention, they need a general knowledge of the field and functions of psychiatry. One of the best books on this subject for general use is Hinsie's *Understandable Psychiatry* (*124*). Hinsie has an unusual gift for writing about a technical field in nontechnical language.

## EDUCATIONAL GUIDANCE, COUNSELING, AND PERSONNEL WORK

During the past 10 or 12 years, the number of textbooks and general treatises on guidance, counseling, and personnel work has been greatly increased. There are now many comprehensive, well-written books on guidance services at all levels of the school.

### GENERAL TEXTBOOKS

One of the most thorough treatments of guidance yet published is Jones's *Principles of Guidance and Pupil Personnel Work* (*134*). This book in its successive editions has been a standard work for some 25 years. The fourth edition, published in 1951, contains four parts: (1) meaning and purpose of guidance; (2) methods of investigation in guidance and personnel work; (3) methods of guiding students; and (4) organization, present status, and evaluation of guidance and personnel work.

Recent books designed to serve as the basis of an introductory course in guidance or for the purpose of introducing teachers in training to the field of guidance services are Crow and Crow's *An Introduction to Guidance: Principles and Practice* (*53*), Ohlsen's *Guidance: An Introduction* (*177*), and Humphreys and Traxler's *Guidance Services* (*129*). The last book deals with meaning, history, and social and psychological foundations of guidance services, their major procedures and techniques, their practical application to pupil problems, and the organization of these services.

Other useful general works on guidance published within the last 10 years are Cox, Duff, and McNamara's *Basic Principles of Guidance* (*47*), Erickson's *A Basic Text for Guidance Workers* (*70*), Knapp's *Practical Guidance Methods* (*145*), Le Fever, Turrell, and Weitzel's *Principles and Techniques of Guidance* (*153*), Mathewson's *Guidance Policy and Practice* (*166*), Morris's *Practical Guidance Methods for Principals and Teachers* (*171*), Strang's *Educational Guidance: Its Principles and Practice* (*218*), Glenn E. Smith's *Principles*

*and Practices of the Guidance Program: A Basic Text* (212), and Willey and Andrew's *Modern Methods and Techniques in Guidance* (260). The last book is a recent contribution which gives a broad concept of guidance and presents techniques of individual guidance and group work appropriate to the concept.

## ORGANIZATION AND ADMINISTRATION OF GUIDANCE

Nearly all the general textbooks in this field devote some attention to the planning, organizing, and administering of a guidance program, but certain books are directed more specifically toward this aspect of the development of guidance programs. Among the better known works of this kind is Roeber, Smith, and Erickson's *Organization and Administration of Guidance Services* (192). Another recent book along this line is *Organizing, Planning, and Initiating a Guidance Program* by Shennan (207).

## SCHOOL COUNSELING

Books which stress the common, everyday problems of counseling to a greater extent than the therapeutic principles and techniques of clinical counseling also have an important place in the library of a guidance worker. A well-planned book by Hamrin and Paulson (114) provides an interesting, informative treatment of approaches to the counseling of adolescents. The authors take an eclectic position on the selection of techniques.

Other useful books on counseling are *Counselors and Their Work* by Rachel Dunaway Cox (48), *A Practical Handbook for School Counselors* by Erickson (71), *Counseling in the Secondary School* by Glenn E. Smith (213), *The Work of the Counselor* by Tyler (246), and *Techniques of Counseling* by Warters (254). Cox's book is based on questionnaire replies and interviews with successful counselors in secondary schools. Erickson's handbook is in question-and-answer form. Smith presents counseling as the central service of the guidance program. Tyler's book is organized around the tools of the counselor. Warters presents an up-to-date treatment of the techniques of individual counseling and group work.

Ability to counsel with parents as well as children has an important bearing upon the success of a guidance program. Counseling with parents of young children is discussed in a recent book by Leonard, Vandeman, and Miles (155).

Persons considering guidance as a field of work and teachers whose duties include guidance services on a part-time basis may wish specific information concerning what one needs to do in order to prepare for work as a school counselor. The preparation and training of counselors have been discussed in a bulletin by Kitch and McCreary (141) and in a series of pamphlets issued by the Division of Vocational Education, United States Office of Education (102).

## SECONDARY SCHOOL GUIDANCE SERVICES

A considerable number of the publications in the field of guidance have to do with guidance services at particular levels of the school. Guidance had its earliest development, and for many years its most vigorous and extensive growth, at the secondary school level; so it was natural for much to be written about guidance work in this unit of system. The well-known Inor Group Guidance Series, consisting of four volumes by the late Richard D. Allen and others (2), is still available.

Among other books having to do with guidance in high school are *Guiding Youth in the Secondary School* by Chisholm (41), *High School Personnel Work Today* by Warters (253), and *Developmental Guidance in Secondary School* by Little and Chapman (159). The National Association of Secondary School Principals devoted its January 1951 bulletin to the topic *Counseling and Guidance in the Secondary School* (46), and Kitch and McCreary of the California State Department of Education have issued a bulletin on *Improving Guidance Programs in Secondary Schools* (140). Another book, Wood and Haefner's *Measuring and Guiding Individual Growth* (270), provides an excellent nontechnical introduction to evaluation and guidance, with emphasis on the secondary school. An unusual feature of this book is that the various topics are introduced and discussed through an informal, conversational procedure by means of which guidance is presented in a natural, everyday high school setting.

## PERSONNEL WORK IN HIGHER EDUCATION

For a good many years, Williamson's *How to Counsel Students* (261), Strang's *Counseling Technics in College and Secondary School* (219), and Lloyd-Jones and Smith's *A Student Personnel Program for Higher Education* (160) were almost the only major references on personnel work in colleges and universities. Within the last decade a number of books aimed entirely or mainly at personnel work in higher education have made their appearance. These include *Student Personnel Services in Higher Education* by Arbuckle (8), *Principles and Procedures in Student Counseling* by Robinson (190), *The Dynamics of the Counseling Process* by Shostrom and Brammer (209), *Counseling and Discipline* by Wil-

liamson and Foley (264), *Trends in Student Personnel Work* edited by Williamson (262), and *Student Personnel Work in College* by Wrenn (273). Personnel services in junior college have been dealt with in publications by Brouwer (29) and McCreary and Hanson (162). There is also a recent book edited by Hardee, *Counseling and Guidance in General Education* (115) to which 18 specialists contributed.

## INTEGRATION OF HIGH SCHOOL AND COLLEGE PERSONNEL PROGRAMS

Some of the references mentioned in the sections on secondary school guidance and personnel work in college call attention to the need for coördination and integration of the personnel programs of high schools and colleges. This need is stressed in Woolf and Woolf's *The Student Personnel Program: Its Development and Integration in the High School and College* (272). Further emphasis on the coördination of guidance services at these two levels of education is found in *Improving Transition from School to College,* edited by Traxler and Townsend (244). This book reports an extensive survey of college admission practices as viewed by colleges and secondary schools which was carried on by the Committee on School and College Relations of the Educational Records Bureau (Burton P. Fowler, chairman). Integration of high school and college guidance services is strongly urged in *Secondary School-College Cooperation: An Obligation to Youth,* a publication of the American Association of Collegiate Registrars and Admission Officers (203).

## GUIDANCE IN ELEMENTARY SCHOOLS

In the earlier years of the guidance movement, very little was written about guidance at the elementary school level. It seems to have been more or less assumed that guidance functions could be handled effectively by elementary school classroom teachers without special assistance. Since about 1950, however, there has been a definite trend toward greater attention to guidance services for elementary school children. The Thirty-third Yearbook of the Department of Elementary School Principals of the National Education Association, under the title *Guidance for Today's Children* (106), includes chapters by many different authors having to do with adjustment problems of elementary school pupils. *Guiding the Young Child,* a book prepared by a committee of the California Schools Supervisors Association and edited by Heffernan (122), deals with the problems of the social, personal, and learning adjustments of children as they enter school. A practical bulletin, *Guidance Handbook for Elementary Schools,* was prepared a few years ago by the Division of Research and Guidance of the office of the Los Angeles County Superintendent of Schools (107).

A small book by Detjen and Detjen, *Elementary School Guidance* (62), and a longer one by Willey, *Guidance in Elementary Education* (259), could serve as textbooks in courses on this subject. Millard's *Child Growth and Development in the Elementary School Years* (169) is a useful supplement to textbooks concerned with elementary school guidance. A little book by Hatch (118) clarifies the role of guidance in the elementary school and deals in a simple and very practical way with guidance procedures at this level. Cottingham's *Guidance in Elementary Schools* (45), published in 1956, furnishes a thorough and well-organized treatment of the philosophy, principles, and actual practices in guidance at the elementary school level.

## GUIDANCE IN DIFFERENT KINDS OF INSTITUTIONS AND FOR VARIOUS GROUPS

Schools in rural areas and in small cities may be particularly interested in a book by Froehlich, *Guidance Services in Smaller Schools* (84). A book devoted to the counseling of girls in schools and colleges was made available some years ago by Cassidy and Kozman (39). A book on *Counseling in Catholic Life and Education* was published by Curran (56). Dame and Brinkman's *Guidance in Business Education* (58) is illustrative of the need for guidance services in particular vocational fields.

Guidance workers whose functions include counseling and rehabilitating the handicapped may wish to refer to a book by Kenneth W. Hamilton in which problems, techniques, and resources are discussed under the title *Counseling the Handicapped in the Rehabilitation Process* (112).

## READINGS IN GUIDANCE

Some of the best thinking in the field of guidance services is brought together in such books as *Readings in Modern Methods of Counseling* edited by Brayfield (24) and *Readings in Counseling* by Zerfoss (278). Seven different authorities contributed to *Pupil Personnel Service* edited by Davis (59). Special mention should be made of *The Yearbook of Education, 1955: Guidance and Counseling* edited by Hall and Lauwerys (230). This extensive and authoritative publication includes chapters contributed by a large group of guidance specialists in Europe and America.

## GROUP WORK

Within the last 10 years, much has been written about group work in guidance. A large proportion of this material is in periodical literature, some of which was listed at the end of Chapter XX, but several books on the subject are now available. One of the best-known is Hoppock's *Group Guidance: Principles, Techniques, and Evaluation* (127). This book consists of three major parts concerned, respectively, with principles, techniques, and evaluation of group procedures. Another and more recent treatment of group work by a well-known authority is Margaret Bennett's *Guidance in Groups: A Resource Book for Teachers, Counselors, and Administrators* (16).

Wright prepared a *Practical Handbook for Group Guidance*, designed for use by homeroom teachers and others dealing with high school pupils in groups (276). Guidance in connection with homeroom and club activities is discussed at greater length in books by Fedder (74) and Vivian Ross (197).

Books dealing with the psychology and dynamic character of classroom instruction are closely related to the field of group guidance. Among these publications, two books that may be of more than ordinary interest are *Dynamics of Learning* by Cantor (36) and *Psychology in Teaching* by Henry P. Smith (214).

## THE TEACHER AS A GUIDANCE WORKER

The procedures of group guidance and the methods of a modern teacher who makes the pupil the focal point of instruction are scarcely distinguishable one from the other. A considerable number of books written especially to help the teacher participate in guidance services have been published during the last decade. Among these are *The Role of the Teacher in Personnel Work*, a revision of an earlier book by Strang (221), *Principles and Methods of Guidance for Teachers*, by Dunsmoor and Miller (66), *Chats with Teachers about Counseling* by Hamrin (113), *Teacher Counseling* by Arbuckle (7), *Guidance Handbook for Teachers* by Davis and Norris (60), and *Student Personnel Work as Deeper Teaching* by Lloyd-Jones and Smith (161).

## VOCATIONAL GUIDANCE

Although educational and vocational guidance cannot and should not be clearly differentiated, certain books are so closely related to the vocational guidance aspect of personnel work that special attention should be drawn to them.

### HISTORY AND SCOPE OF VOCATIONAL GUIDANCE

In recent years, clinical counseling and psychotherapy by trained psychologists directed toward personal and social adjustment have become increasingly important in guidance theory and practice, but it is well for every guidance worker to keep in mind the fact that the origin of the guidance movement in the United States and much of the impetus of this movement grew out of the need for better vocational adjustment and placement on the part of thousands of young people and that *in the minds of many laymen the vocational guidance function is the main justification for the introduction of a guidance program into our schools and for its support through public funds.* An appreciation of the history and scope of vocational guidance may be obtained through such publications as Brewer's *History of Vocational Guidance: Origins and Early Development* (26), Keller and Viteles's *Vocational Guidance Throughout the World* (139), and the *Encyclopedia of Vocational Guidance*, edited by Oscar Kaplan (137). A more recent and briefer survey of the history of guidance services, with special reference to vocational guidance, may be found in Chapter V of *Guidance Services* by Humphreys and Traxler (129).

### TEXTBOOKS ON VOCATIONAL GUIDANCE

Forrester, a well-known writer in the vocational guidance field, has published an extensive revision and enlargement of her earlier book, *Methods of Vocational Guidance* (79). Other comprehensive textbooks are *Principles of Vocational Education: The Primacy of the Person* by Keller (138) and *Principles and Practices of Vocational Education* by Mays (167). Blum and Balinsky's *Counseling and Psychology* (22) is primarily concerned with vocational counseling. A large portion of the book has to do with psychological tests suitable for use in vocational selection.

### OCCUPATIONAL INFORMATION

Among the writers who have contributed much published information about occupations are Baer, Forrester, Greenleaf, Roeber, and Shartle. Baer and Roeber's *Occupational Information: Its Nature and Use* (10) discusses occupational structure and functioning. Shartle's book, *Occupational Information: Its Development and Application* (206), was extensively revised and brought up to date in the second edition published in 1952. Greenleaf has issued many helpful publications includ-

ing *Guide to Occupational Choice and Training* (101), *Occupations—A Basic Course for Counselors* (103), *Government Monographs on Occupations* (102), and *Occupations and Careers* (104). Forrester's *Occupational Pamphlets: An Annotated Bibliography* (78) and her *Occupational Literature: An Annotated Bibliography* (80) are especially useful resource materials. The latter publication gives major attention to literature published since 1950. Another worth-while reference is a publication of the United States Department of Labor, *Occupational Outlook Handbook: Employment Information on Major Occupations for Use in Guidance* (176). This revision of an earlier bulletin includes 433 occupations and gives information on status and trends.

### OCCUPATIONAL PLACEMENT

For information about occupational placement and suggestions for organizing and administering placement service, Reed's book, *Occupational Placement: Its History, Philosophies, Procedures and Educational Implications* (186), is useful. Other references in this area include Bridges' *Job Placement of the Physically Handicapped* (27) and *Occupational Choice: An Approach to a General Theory* by Ginzberg, Ginsburg, Axelrad, and Herma (93).

### EMPLOYMENT NEEDS AND OPPORTUNITIES

One of the most difficult problems met by a guidance worker whose functions include vocational counseling is to keep informed on the present and future needs for workers in different occupations and on the potential opportunities for their counselees in various lines of work. This is a continuing problem which the counselor must meet through his own efforts, but various publications contain helpful information and suggestions relative to the question. Among these are *The Sociology of Work* by Caplow (37), *Motivation and Morale in Industry* by Viteles (249), *Human Relations in Industry* by Gardner and Moore (87), and *Labor Mobility and Economic Opportunity,* which contains essays by six contributors on the facts and problems of labor mobility (148). Kitson's well-known book, *How to Find the Right Vocation,* which is in its fourth edition (142), was followed up with *Vocations for Boys,* a recent book written by the same author in collaboration with Morgan (143).

Studies and recommendations concerning needs and available supply of talent for the professions are particularly important for the guidance worker whose counselees include a large proportion of college-bound youth. Among the more significant sources of this kind are *America's Resources of Specialized Talent,* a report of the Commission on Human Resources and Advanced Training, prepared by Wolfle (268) and two publications issued by the National Manpower Council, *A Policy for Scientific and Professional Manpower* (173) and *A Policy for Skilled Manpower* (174).

## INTERESTS AND THEIR MEASUREMENT

The field of interests is closely related to vocational and educational guidance choice and placement, and it is also one of the broad categories that counselors must explore before they are fully equipped to understand the individual child. Strong has carried on the most sustained studies of interests that are related to vocational choice. His book, *Vocational Interests of Men and Women* (222), is a classic in the field, and it has been supplemented by a number of more recent studies reported in various places in educational literature by the same author. Strong's book should be in the possession of everyone who administers and attempts to interpret the Strong Vocational Interest Blanks.

A different approach to the measurement of interests is represented by the Kuder Preference Record. The *Examiner Manual for the Kuder Preference Record-Vocational* (146) contains valuable information relative to the classification of occupations according to major interests as indicated by this instrument.

## TESTING IN A GUIDANCE PROGRAM

In order to study the individual child adequately, the counselor must, of course, be familiar with the meaning, interpretation, and use of test results. Many books on testing are available, and the counselor should certainly have one or more of these at hand.

### GENERAL TEXTS

Three excellent, recently published, general textbooks in this field are Remmers and Gage's *Educational Measurement and Evaluation,* rev. ed. (187), *Measurement in Today's Schools* by the late C. C. Ross, as revised by Julian C. Stanley (196), and Thorndike and Hagen's *Measurement and Evaluation in Psychology and Education* (236). The guidance worker who does not have a background in the field of testing may wish to start with an introductory book, such as Jordan's *Measurement in*

*Education: An Introduction* (135) or a very elementary little book, *Introduction to Testing and the Use of Test Results in Public Schools,* which was prepared by Traxler, Jacobs, Selover, and Townsend with the coöperation of the Public Schools Advisory Committee of the Educational Records Bureau (243), or *Guidance Testing,* a monograph by Froehlich and Benson (85).

## BOOKS ON PSYCHOLOGICAL TESTING

Two books by competent authorities on the testing of mental and personal qualities are *Psychological Testing* by Anastasi (3) and *Essentials of Psychological Testing* by Cronbach (51). Anastasi's book deals with principles of psychological testing, general classification tests, differential testing of abilities, and measurement of personality characteristics. Other recent books in this general area are *Theory and Practice of Psychological Testing* by Freeman (82) and *Measurements of Human Behavior* by Edward B. Greene (98).

## ACHIEVEMENT TESTING

The most authoritative and comprehensive book on measurement in the field of education is *Educational Measurement,* edited by Lindquist (158). This book contains chapters contributed by 20 specialists in measurement, and was prepared during a period of about five years with the coöperation of numerous other authorities in the testing field. It consists of three parts: (1) the functions of measurement in education, (2) the construction of achievement tests, and (3) measurement theory. It definitely is not an elementary book, but it is one of the most important and valuable books ever published in the measurement field.

A recent book by Travers on *Educational Measurement* (241) is also a very good reference in this field. It contains four parts: background for educational measurement, measuring the intellectual outcomes of education, measuring personality development, and predicting pupil progress. Other useful books in which the measurement of educational achievement is emphasized are Micheels and Karnes's *Measuring Educational Achievement* (168), Greene, Jorgensen, and Gerberich, *Measurement and Evaluation in the Elementary School,* 2d ed. (99) and *Measurement and Evaluation in the Secondary School,* 2d ed. (100), and Torgerson and Adams, *Measurement and Evaluation for the Elementary School Teacher* (240). The last book includes the evaluative process, the study of individuals, the improvement of instruction, administrative and supervisory aspects, and implications for corrective procedures.

## VOCATIONAL AND PERSONNEL TESTING

The most comprehensive book concerned with testing for purposes of guidance toward vocations is *Appraising Vocational Fitness by Psychological Tests* by Super (224). This book serves a purpose somewhat similar to that formerly served by Bingham's classic *Aptitudes and Aptitude Testing* (20) which has been out of print for some years. Two other books, *Personnel Selection: Test and Measurement Techniques* by Thorndike (235) and *Principles of Personnel Testing* by Lawshe (151), are also helpful in connection with measurement for purposes of vocational guidance.

## APPRAISAL BY MEANS OF TESTS AND OTHER DEVICES

In Froehlich and Darley's book, *Studying Students: Guidance Methods of Individual Analysis* (86), the discussion is concerned with the study of the individual through observation, the interview, the autobiography, tests and measurements, and sociometric methods. Another book in this area is *Judging Student Progress* by Thomas (231). An excellent new book, *Evaluation in Modern Education,* has been made available by Wrightstone, Justman, and Robbins (277).

## MENTAL MEASUREMENTS YEARBOOKS

Counselors who have the problem of selecting tests for various purposes should have access to Buros's *Mental Measurements Yearbooks* (32, 33). These yearbooks not only provide an extensive and detailed listing of the newer tests, as well as books on measurement, but also contain hundreds of test reviews written by measurement specialists. Although some of the reviews are subjective and reflect the personal bias of the writers, the reviews, as a whole, provide the best appraisal of objective tests available anywhere.

# CASE STUDIES

Books dealing wholly or in part with case studies are very valuable references in connection with any guidance program. One of the best and most recent books based on case studies is *The High School Student: A Book of Cases* by Rothney (198). Detailed case records of 27 boys and girls are reported in this book and are classified into certain groups, such as the troubled ones, the ones in trouble, the quiet ones, and so forth. The book also contains discussion questions and a chapter on "Principles, Problems, and Methods."

The first part of a study by Rothney and Roens, *Guidance of American Youth* (200), contains case reports for 10 pupils including not only information about the nature of each case but also progress of counseling and follow-up several years later. Rothney and Roens also gave extensive case histories in their book *Counseling the Individual Student* (199). Illustrative of case work in clinical counseling, verbatim reports of five cases each were given in a *Casebook of Nondirective Counseling,* edited by Snyder (216) and a *Casebook of Counseling* by Callis, Polmantier, and Roeber (35).

In a publication of The Psychological Corporation, *Counseling from Profiles: A Casebook for the Differential Aptitude Tests,* Bennett, Seashore, and Wesman (15) approached case work from the standpoint of measurement with an extensive test battery and showed how test profiles along with other information could be used in brief case studies of pupils in the junior and senior high schools.

While some case studies reported in educational and psychological literature are more extensive and elaborate than would be found in the usual school situation, other reports illustrate the kind of study that teacher-counselors should be able to handle. For instance, a chapter in which 15 case studies prepared by classroom teachers were presented was included in the Educational Records Bureau report of the Public School Demonstration Project, *Guidance in Public Secondary Schools* (242) issued some years ago.

## CUMULATIVE RECORDS

Because some kind of cumulative record is now almost universally used in guidance programs, reports dealing with the nature and use of cumulative records are likely to be of particular interest to personnel workers. In Ayer's *Practical Child Accounting* (9), Chapter VI, "The Pupil's Cumulative Record—Elementary School," and Chapter VII, "The Pupil's Cumulative Record—High School," are very helpful references. Cumulative records of test results are illustrated and discussed in considerable detail in the book, *Introduction to Testing and the Use of Test Results in Public Schools* (243). The *Manual for Cumulative Records* published by the American Council on Education (164) is not merely a manual for the American Council Cumulative Record Forms but it provides a well-planned introduction to the history, uses, and procedures of introducing and maintaining records of the cumulative type. Discussions and illustrations of the uses of cumulative records are likewise found in various journal articles and monographs.

## STUDIES RELATED TO GUIDANCE

The comparatively young field of guidance does not have a clearly defined body of principles and procedures founded upon research of its own. From the beginning, it has been characterized by a considerable degree of confusion and uncertainty, for it is a meeting ground, and in a sense a battleground, of a host of professional workers whose basic experience and training are in other areas—medicine, psychiatry, psychology, education, psychometrics, social work, and industry. These specialists from other fields bring their opinions and beliefs and prejudices, as well as their more objectively based knowledge, to bear upon guidance practices.

Guidance literature is replete with statements calling attention to the need for more and more research. Guidance functionaries do not themselves seem inclined to fill the vacuum with studies of their own. Many guidance workers seem temperamentally unsuited to the task of carrying on serious research. They are inclined to be warm, outgoing personalities who like to deal with people, as they should be, if counselees are going to turn to them in large numbers for help. But research is a lonely business—a business which seems particularly suited to introverts. So guidance services go forward and expand out of a background which is perhaps 5 percent research and 95 percent faith.

There are, nevertheless, hundreds of studies which have some relationship to the understanding and guidance of the individual child—studies reported in educational and psychological journals, doctoral dissertations, psychological monographs, and many other places. Counselors cannot be expected to be familiar with all these, but they should have a bowing acquaintance with some of the more significant investigations, and, even more important, they should know where to turn for references dealing with research on their problems. The more important research on "pupil personnel work" and "student personnel work" up to 1950 is reviewed in the revised edition of the *Encyclopedia of Educational Research* (170: 909–948, 1292–1362). Persons desiring to obtain a rather thorough historical background of research in the field of guidance and personnel work might advisedly begin by reading these two sections of the *Encyclopedia.*

Perhaps the most comprehensive and systematic periodic summary of research on personnel work is to be found in the *Guidance, Counseling, and Pupil Personnel* issue which appears at intervals of three years in the *Review of Educational Research* published by the American Educational Research Association. An idea of the scope and organization of this issue of the *Review* may be obtained from a listing of the chapter titles which appeared in the April 1954 number (105). These were "Organiza-

tion and Administration of Guidance in Elementary and Secondary Schools," "Organization and Administration of Student Personnel Programs in College," "Selection and Training of School and College Personnel Workers," "The Counseling Function," "Group Guidance Approaches in Educational Institutions," "Group Therapy in Educational Institutions," "The Use of Tests in Educational Personnel Programs," "Selecting and Using Vocational and Social Information," and "The Classroom Teacher's Role in Guidance." A total of 399 titles of research publications was included in this number alone, although a considerable proportion of these could be called research only under a rather liberal definition of the term.

## STUDIES RELATED TO THE DISTRIBUTIVE FUNCTION OF GUIDANCE

In performing their counseling function having to do with distribution of individuals to educational and vocational opportunities, counselors must undertake to look into the future. They need the results of studies which will help them understand trends in supply and demand for different kinds of workers. A prime example of this kind of study is Wolfle's *America's Resources of Specialized Talent*, a report of the Commission on Human Resources and Advanced Training (268), which was mentioned in another portion of this chapter. Publications resulting from studies in which occupations have been organized into major groups, such as the *Dictionary of Occupational Titles* (63) and Greenleaf's *Occupations and Careers* (104), are also very useful in this connection, since they help both counselor and counselee to see how training for one occupation may furnish a valuable background for employment in a variety of related occupations.

Studies pertaining to relations between secondary and higher education furnish the counselor with a background for better educational guidance. Historically, one of the most influential studies of this kind was the study of the relations of secondary and higher education in Pennsylvania carried on under the auspices of the Carnegie Foundation for the Advancement of Teaching and reported in *The Student and His Knowledge* by Learned and Wood (152).

A number of more recent studies have important implications for guidance from secondary school to college. Among the most comprehensive is a set of four related projects sponsored by The Fund for the Advancement of Education, on which a progress report was made in the publication *Bridging the Gap Between School and College* (28). One of these studies was based upon coöperation between three schools and three colleges in developing a coördinated program of general education; a second study had to do with ways of meeting the needs of exceptionally endowed students in secondary schools; a third was concerned with admission to college with advanced standing; and the fourth study was centered around the early admission of students to college. The first of these studies was reported at somewhat greater length in a book published by the Harvard University Press (91).

Among reports of other studies having implications for the counseling of college-bound students are *Who Should Go to College* by Hollinshead (126), *The Impending Tidal Wave of Students* by Ronald B. Thompson (233), *A Survey of the Education of Gifted Children* by Havighurst, Stivers, and DeHaan (120), *General Education: Explorations in Evaluation*, the final report of the Coöperative Study of Evaluation in General Education of the American Council on Education, by Dressel and Mayhew (65), and *Improving Transition from School to College*, a study of college admission by the Committee on School and College Relations of the Educational Records Bureau (244). The Bureau's committee study of college admission was followed up by a study of the adjustment of college freshmen based on a questionnaire submitted to about 500 freshmen, a report of which was being prepared at the time this chapter was written.

## STUDIES PERTAINING TO ADJUSTMENT

Studies of the character and behavior of children and adolescents obviously help guidance workers understand individual counselees. The series of studies in the Character Education Inquiry under the direction of Hartshorne and May (117) nearly 30 years ago probably remain the most comprehensive investigation ever undertaken in this area. Among studies of more recent date, Havighurst and Taba reported an investigation of *Adolescent Character and Personality* (119) in which they identified personality types among 16-year-old youths.

The rise of psychotherapy and nondirective procedures has naturally led to an interest in research on the values of these procedures. Although enthusiasm in this area seems to have run considerably ahead of research, a growing number of studies is becoming available. Rogers and Dymond have reported some advanced research in client-centered counseling at the University of Chicago Counseling Center in their book *Psychotherapy and Personality Change* (195). Raimy (182), Snyder (215, 216), and others have reported results indicating positive values for the nondirective or client-centered approach.

## STUDIES PERTAINING TO BROAD VALUES OF AND NEEDS FOR GUIDANCE

Rothney and Roens' study, *Guidance of American Youth* (200), is one of the most thorough studies of the procedures and outcomes of counseling yet reported. Longitudinal and follow-up procedures were used with a large group of pupils who had had continuous counseling during the five years in which they attended Grades 8 through 12. This study should be of general interest to all counselors.

A number of reports on guidance needs and outcomes has been issued by the University of Minnesota which has always been a leader in objective evaluation in the guidance area. Recent studies include *Guidance Procedures in High School* by Wrenn and Dugan (275), *After High School—What?* by Berdie (18), and *A Study of Participation in College Activities* by Williamson, Layton, and Snoke (265).

Counselors should find considerable interest in Benz's study, *An Investigation of the Attributes and Techniques of High School Counselors* (17), in which a description of the elements of good counseling was worked out from the results of tests and inventories submitted to a jury of experts and to high school pupils.

Guidance workers contemplating research on the values of their work may wish to consult *Procedures in Evaluating a Guidance Program* by Wilson (266), as well as *Criteria for Evaluating Guidance Programs in Secondary Schools,* published by the U. S. Office of Education (50).

## STUDIES OF THE ORGANIZATION OF MENTAL ABILITIES AND OF MEASUREMENT OF THESE ABILITIES

Within the last 15 or 20 years, measurement in connection with guidance programs has been much influenced by theories of group factors of mental ability emanating to a considerable extent from the research of the late L. L. Thurstone, as reported in his monograph, *Primary Mental Abilities* (239) and more recent studies.

In recent years, a large number of research workers have reported studies based on the SRA Tests of Primary Mental Abilities by the Thurstones and studies of other tests yielding profiles of mental abilities, such as the Differential Aptitude Tests, the Yale Educational Aptitude Tests, the California Test of Mental Maturity, and to a lesser extent the new Holzinger-Crowder Uni-Factor Tests. Research on these tests and numerous others is reviewed every three years in the "Educational and Psychological Testing" number of the *Review of Educational Research* (69). This is the guidance worker's best source of information concerning research on tests of mental ability, tests of special aptitude, tests of achievement, and projective and nonprojective tests of personality.

## VISUAL AIDS TO GUIDANCE

Since projectors for 16-mm sound film are now standard equipment in most colleges and secondary schools, instructors of guidance courses, guidance directors, and persons in charge of guidance workshops should be alert to opportunities to use guidance films in promoting understanding of pupil behavior, problems encountered by young people, and procedures of organizing and administering guidance. Films such as *Counseling Adolescents* (281), *Getting a Job* (282), *Learning to Study* (287), *Personality and Emotions* (291), and the other films listed in the last section of the bibliography, can be used to advantage in educating counselors and teachers in guidance procedures. Film strips, such as *Nature of a Job* (290), are particularly helpful in stimulating discussion. Titles of other films which might be useful in a school's guidance program can be checked in the Educational Film Catalog, published monthly during the school year by the H. W. Wilson Company, 950 University Avenue, New York City. It would be desirable for guidance specialists to give increased attention to the preparation of this type of special aid for a training program in guidance techniques.

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In order to keep posted on the ever-growing literature on guidance and personnel work, counselors should have access to some of the more important bibliographies in the field. A selected and annotated bibliography of *Professional Books on Guidance and Personnel Services* by Hitchcock (125) is one of the most helpful references. Perhaps the most useful annual bibliographies are the list of "Selected References on Guidance," prepared by Hutson (131), or by Hutson and Norberg (132), which appears each September in the *School Review,* and *Guide to Guidance* edited by M. Eunice Hilton (123).

A comparatively new publication for guidance workers and students, the *Annual Guidance Index,* which includes guidance publications and occupational information, is published by Science Research Associates (6).

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APPENDIX

# *Guidance and Placement of Persons Whose Education Has Been Interrupted*[1]

ALTHOUGH AN EDUCATIONAL GUIDANCE PROGRAM is normally concerned mainly with pupils in school and individuals who have recently been graduated from or have dropped out of school, another group especially needs the advice of counselors in schools and colleges. This group consists of more mature individuals whose education has been interrupted and who desire counsel concerning further educational opportunities, and advice about the desirability of returning to school as contrasted with immediate entry upon a new vocation, and concerning related problems. Except for a short period following World War I, the number of such individuals was comparatively small until the second world war.

[1] The first edition of the book contained an appendix under this title. At that time, 1945, the problem of educational and vocational guidance and placement of veterans was acute. At present, the problem is much less acute, and the number of persons involved is far smaller. Nevertheless, long-continuing international tensions and the fact that it is imperative that the United States maintain its strength and preparedness for any eventuality make the future uncertain for millions of young people. Even in a long period of "cold war," it seems likely that each year some thousands of young men will have their education interrupted for a period of military service. Moreover, the experiences in further education of veterans, and, in many cases, their wives since World War II, have led to a view that an interruption in education and a return to school or college at a more advanced age than was formerly usual is normal. So, even when military service is not involved, there is likely to be a greater tendency for many young people to interrupt their education for reasons of their own and later to resume it. It therefore seems appropriate to maintain this appendix in somewhat revised form in the present edition of the book.

## NEW PROBLEMS OF EDUCATION AND GUIDANCE FOLLOWING WORLD WAR II

The transition from war conditions to a peacetime economy and social structure which took place at the end of the second world war changed this formerly small and numerically unimportant group to one of staggering proportions and critical importance. It challenged guidance resources as never before. The national government clearly recognized the need for counseling and made provision for the establishment of counseling services, particularly in connection with the Veterans Administration, but the situation was one which called for the mobilization of the total counseling resources of the nation. The guidance services of hundreds of schools and colleges provided splendid coöperation in the emergency.

The young people whose education was war interrupted fell into two general classes, war veterans and employees in war industries. The first group was the larger and was the one toward which most of the guidance efforts were naturally directed. The individuals in this group had matured rapidly under the stress of war. Their outlook upon their environment was, in many respects, more adult than that of young people of comparable age in civilian life. A large proportion of them had their knowledge of the world greatly extended by a long period of service in different parts of the earth. Many had acquired intricate technical skills while in the Armed

Forces. The majority were anxious to get established vocationally, and a large proportion of those who resumed their education desired courses which would contribute to their vocational adjustment. These men faced problems of readjustment to civilian life and to the environment of their family and friends. Some were physically handicapped and some had acquired neuroses during the strain of military life, but these formed only a small percent of the total number.

The second group, war industry employees, contained a large proportion of young women. The group had had experiences during the war which were, on the whole, less maturing than those of the men and women in the Armed Forces. Their experiences had been less varied in matters broadly educational. Some of them were exceptionally highly trained in technical skills. With the marked cutback in war industries between the end of World War II and the beginning of the Korean War, many of these young people resumed their education. These young people increased to a considerable extent the load on the guidance services of educational institutions.

Generous financial support for the education of veterans was provided for under Public Law 346, the "GI Bill," and Public Law 16, which dealt with the preparation for employment and the placement of disabled veterans.

Returning service personnel took advantage of the educational opportunities in even greater numbers than had been anticipated. With the aid of the original GI Bill, more than 7,800,000 of the youth obtained some additional education. Of these, 2,200,000 attended college; 3,500,000 went to schools below the college level; and 2,100,000 took on-the-job or on-the-farm training. At present, the average male veteran has completed more than 12 years of school, while the number of years of schooling for the average nonveteran is slightly more than ten (*12*:50).

Numerous veterans who had not finished high school were admitted to college on bases other than high school graduation, including especially the obtaining of "passing scores" on the General Educational Development Tests of the United States Armed Forces Institute. Many others obtained high school equivalency certificates in the same manner and thus qualified for industrial positions requiring a high school education.

In general, the school and college performance of veterans was at least as good as, and frequently better than, that of students whose education had not been interrupted. Among the numerous studies of the college success of veterans, one of the more comprehensive studies was reported by Gideonse (*13*). This study was based on 2396 veterans and 1259 nonveterans in Brooklyn College during the period 1946 to 1949. Although the veterans entered college with lower admission scores or returned to college with poorer preservice records than did comparable nonveterans, the results showed that they maintained a slight but consistent superiority in academic performance over the nonveterans. Gideonse's interpretation carries some implications for future educational and guidance practices. He said in part:

> The indication is that, not primarily or even necessarily wartime service, but the greater maturity that comes from a few additional years, the clearer conception of purpose, keener incentive, and more serious application gave veterans some advantage in the pursuit of college education. This conclusion justifies the suggestion that future investment in the higher education of selected older youth might bring rewarding educational returns and should very seriously be considered (*13*).

A study by Kirk (*19*) indicated that counseling could affect vocational goals and that the changes in kind of objective were somewhat in the direction of occupational trends. Kessler (*18*) found that nearly three-fourths of a group of veterans rehabilitated under Public Law 16 were satisfied with their jobs and that of these more than 70 percent were working at the objectives for which they had been trained. The fees for vocational counseling of veterans of World War II were paid by the federal government.

The values of veteran counseling services in connection with educational institutions soon drew attention to the need for such services for older young people and adults regardless of their war-related status. As early as 1944, McGrath (*21*) urged that "such services should be provided for citizens other than veterans, and they should continue after the acute counseling problems incident to the return of veterans have disappeared." As the needs for counseling of veterans tapered off, many veterans' guidance centers were transformed into community counseling services along the lines discussed by Scott (*25*).

## CURRENT GOVERNMENT PROVISIONS FOR THE EDUCATION OF VETERANS

At the beginning of the Korean conflict in 1950, it at once became apparent that new government provisions would be needed for the education of young men whose schooling was interrupted because of military service connected with the new national emergency. At first there was a question whether it would be preferable to extend the old law with suitable amendments or draft a new one, but it was decided that new legislation was needed in order to embody provisions that would furnish

reasonably adequate support for further education and yet would be financially feasible for the government for a period that might extend over many years.

## PUBLIC LAW 550, "THE KOREAN GI BILL"

Efforts which were begun in 1950 to obtain new legislation to provide for the education of Korean war veterans culminated in Public Law 550, which was signed by President Truman on July 16, 1952. In the drafting of this bill, account was taken of the fact that the Korean conflict was but a phase, apparently, of a long-drawn-out world-wide struggle with communism and that a program of support of veteran education was needed which could be carried on indefinitely without having it become an impossible financial burden on the government. The old GI Bill, Public Law 346, had been generous, since the number of veterans of World War II, while extremely large, was fairly definite. By contrast, the conflict with the forces of communism, while not so acute in the beginning, seemed to have no point of termination. Consequently, the total financial outlay for the education of returning servicemen in the present and future emergency might well turn out to be much larger than that for the veterans of the second world war.

Public Law 550 embodied a concept different from that of Public Law 346. The old GI Bill furnished an educational bonus to veterans, whereas the new law provided for a federal-student-aid program to veterans.

Public Law 550 applies to any veteran of service after June 27, 1950 who has served in any theater of operation for 90 days or more and has been released or discharged under conditions other than dishonorable. Such a veteran is entitled to 1½ days of education or training for each day of his active service up to a maximum of 36 months of education. In order for one to qualify under the law, it is necessary for his training to start within two years after active discharge, and no education or training will be provided after seven years from discharge.

The veteran may choose to study at any approved educational institution in the United States; he must carry at least 14 semester hours to qualify as taking a full study load. At present, individual monthly payments are as follows: with no dependents, $110; with one dependent, $135; with more than one dependent, $160. Payment is made directly to the student himself, who must pay his tuition fee out of his overall monthly allowance.

The fact that the veteran must pay his own tuition fee and the further fact that no adjustment is made in the amount he receives from the government according to the amount of tuition charged by the college has led to severe criticism of the law on the part of many educators. It is claimed that the law favors attendance at public institutions or private institutions with low tuition rates and operates against attendance at top-grade, high-tuition, private colleges. Various attempts were made to amend the law in order to separate subsistence from costs of instruction, but thus far all these have been unsuccessful.

It was stated by Fine (10) that the present method of direct payment to veterans is not so attractive as the method under the old law. He mentioned that only about 10 percent of the veterans of the Korean conflict were enrolled in college as compared with 75 to 90 percent of the veterans after World War II. Likewise, Eckelberry (7:25), as well as many other educators, expressed regret over the fixed monthly allowance, irrespective of the type of institution, but he expressed the opinion that, on the whole, Public Law 550 was a fine example of federal aid to, without federal domination of, education.

An innovation in Public Law 550, as compared with Public Law 346, is that the veteran may make not more than one change of program of education or training. Because this provision allows for only a small margin of error, it places a strong responsibility upon educational counseling services.

Public Law 550 provides a continuing program of educational benefits for veterans of military service which may go on indefinitely. It has taken advantage of the experience acquired under Public Law 346, has retained much of what was desirable in that law, and has eliminated loopholes which made abuses possible in the operation of the earlier program. When considered in conjunction with universal military training, its importance in the education and guidance of older youth and adults is apparent. The far-reaching influence of the present law, in terms of number of persons affected, is indicated by the fact that as of October 31, 1955, the Veterans Administration reported that 325,000 veterans of the Korean War were taking courses in institutions of higher learning under Public Law 550 (32).

The benefits of Public Law 16 were extended through Public Law 894 to eligible disabled veterans who had served since June 27, 1950. Hence, Public Law 16 is in effect an open-end law which continues to make the same provisions for disabled veterans that were made for such veterans of World War II.

## WHAT COUNSELORS CAN DO

How may a school counselor effectively assist in the guidance of these older youth who have experienced interruptions in their education and who may turn to him for counsel?

One step is to get acquainted with the provisions of

the federal government for the education of veterans along the lines discussed in the preceding section and with the provisions made by his own state.

A second type of preparation is to try to estimate the probable annual demand for further schooling in the local community on the part of those whose education has been interrupted. In large cities, such estimates are likely to be considerably erroneous, but in small communities which have a stable population, information may be obtained concerning the plans of nearly every individual in this group and the prediction of educational demands may be highly accurate. It is desirable, too, to go ahead a step beyond prediction and to seek out and encourage those young people with unusual abilities to resume their education. This kind of undertaking is particularly important in view of the critical national shortage of workers in professional and technical fields.

A third step is to survey the facilities for the further education of individuals whose education has been interrupted. One should look first into the educational opportunities in the local community, the types of courses offered by local colleges, and special provision in the way of accelerated courses and vocational training for veterans and other mature students should be noted. The local public school system should be encouraged to make special provision at the high school level for further education of men returning from service and other older youth who will not be content to go back into the regular high school environment with boys and girls much younger in years and experience than themselves. This kind of demand for further education is reflected in the remarkable growth of adult education programs in public school systems throughout the country.

Counselors should also become acquainted with educational provisions for veterans and others in nearby centers, as well as with the leading institutions for various types of vocational and professional education throughout the nation. It should be kept in mind that those who qualify under Public Law 550 or Public Law 16 do not have to attend school or college in their local community or their own state but may receive federal aid for training in any accredited educational institution to which they apply and are admitted, regardless of location in the United States.

A fourth step is to survey the employment opportunities in the local community and to try to predict those which will probably be available when the individual completes his education. Probable country-wide trends in work opportunities in different vocations should also be studied continuously. The guidance of individuals whose education has been interrupted is much more closely related to vocational decisions than that of younger counselees, and the value of the counseling given will depend largely upon the accuracy and recency of the information available to counselors.

The probable effects of automation upon the occupational outlook should be studied by all counselors. It is likely that one of the general effects of a greater degree of automation in industry will be to upgrade employment opportunities. As Baldwin (2) has pointed out, there will be greater demand for well-educated, skilled, technically trained employees and less demand for unskilled and clerical workers. Courses in mathematics, science, and engineering are among those which will be particularly helpful to job seekers in an age of automation.

A fifth step that the counselor can take is to become acquainted with the requirements of different occupations and with the composition of "job families." The counselor may already have accumulated much information of this kind in connection with his usual guidance activities, but it is improbable that the requirements of occupational counseling of high school youths will have called for as broad or as thorough a knowledge of a vocational field as will be needed in the guidance of this more mature group. In this connection, everyone who participates in this type of counseling should have access to the *Dictionary of Occupational Titles* (6). A publication by Horchow, *Careers for Young Americans in the Army and After* (15), provides very helpful detailed information on the matching of army jobs with civilian occupations. It is a useful reference in long-range vocational planning in which army service may be utilized as valuable work experience.

The *Dictionary* was described briefly in Chapter III. The definitions found in Part I for thousands of different jobs are of great value, for these definitions are stated definitely and specifically in terms of the detailed work performed on the job. Thus a counselor is provided with a basis for deciding whether or not a job is in line with the aptitudes and interests of the persons being advised even though the counselor may have had no firsthand experience with the job in question. Moreover, through the use of Volume II on Titles and Codes, which classifies jobs into groups or families, a counselor can see the relationship of the previous work experience of the individual to a variety of jobs. The potential usefulness of Part IV of the *Dictionary* in counseling the younger veterans should not be neglected. This part makes possible the classification and placement of men who have had little or no work experience (34).

A sixth, and very important, step in the preparation of one who expects to counsel those whose education has been interrupted is to become thoroughly acquainted with all sources of information concerning the abilities and achievements of an individual and with techniques for obtaining further information. Perhaps the most im-

portant single source of this kind of information is the individual's previous record, including schooling, with information on courses taken and marks obtained, military service, and work experience, if any.

The results of tests provide almost equally valuable data on abilities, achievements, interests, and personal qualities.

Some veterans will have taken the United States Armed Forces Institute Tests (31) while in the service, and their scores, translated into terms of national norms, may be used in counseling. Those individuals who have not taken these tests and who contemplate further education should have the appropriate ones, or other suitable tests, administered to them.

The Armed Forces Institute Tests are published on two levels, high school and college. Each level consists of two series, tests of general educational development and tests of achievement in different subjects.

At each level, the tests of general educational development consist of Test 1: Correctness and Effectiveness of Expression; Test 2: Interpretation of Reading Materials in the Social Studies; Test 3: Interpretation of Reading Materials in the Natural Sciences; and Test 4: Interpretation of Literary Materials. At the high school level, there is also Test 5: General Mathematical Ability. There are several forms of the high school tests, one of which is available for civilian use (Form B). The Tests of General Educational Development, or GED, are annotated in Chapter VI.

The subject tests used by the Armed Forces Institute cover 32 high school subjects and 43 college subjects. There are two forms, A and B, of most of these tests. The tests are designed for academic and general technical courses. Suggested minimum scores have been worked out for each test (31:7–9).

In addition, the USAFI series contains a set of end-of-course tests which are not standardized but are used to a considerable extent at the college level.

The Tests of General Educational Development have been used much more extensively than the other USAFI tests. There have been many studies of these tests as bases for admission to schools and colleges, for the granting of high school equivalency certificates, and for hiring of individuals for positions in business and industry.

An extensive survey, analysis, and interpretation of these studies was made by Tyler (30). The Tyler report was critically reviewed by a national committee appointed by the American Council on Education. This committee, under the chairmanship of A. J. Brumbaugh, approved for publication a briefer and somewhat modified version of the Tyler report. That report, while recognizing the limitations of the GED battery for some purposes, particularly the certification of persons who have not had a full high school course, shows clearly that research indicates that this battery is a valuable basis of guidance, college admission, and vocational placement. In general, individuals admitted to college or hired by industry on the basis of this battery have done almost, if not quite, as well as those admitted or hired on more conventional bases (37).

For individuals who do not plan to continue their formal education and whose main need is vocational guidance, the problem of selection of suitable and useful tests is more difficult than it is in the case of those who are continuing school. Most persons who desire advice concerning vocational choice want to be helped first of all to discover what their own aptitudes and abilities are. A certain amount of information on this question can be obtained from the record of work experience of individuals who have held jobs, but among the war veterans are many boys who went directly from high school into the Armed Forces and who have had little or no work experience. Frequently, these young men will ask for a test to show their vocational aptitudes.

Inferences about vocational aptitude may be drawn from a battery such as the Differential Aptitude Tests published by The Psychological Corporation or the Flanagan Aptitude Classification Tests published by Science Research Associates. Both these test batteries were described in Chapter V.

Among the most useful instruments in a program of guidance for veterans and others who may turn to educational counselors for help in reaching decisions about their field of study and work are inventories of interests, such as the Strong Vocational Interest Blank for Men and the Kuder Preference Record. These two instruments, both of which were listed and discussed in Chapter VI, were widely used in the counseling of veterans after World War II. Both tests yield results which may be expressed on individual graphic record sheets in the form of a profile. Illustrative records are shown in Figures 6, 7, and 8.

Figures 6 and 7 show the scores of two young men on the Strong Vocational Interest Blank. The names of the occupations are given in the column near the left-hand margin of the sheet. There is a column in which the standard scores may be shown numerically adjacent to the occupations. The standard score scale is also printed across the top of the sheet, and letter ratings (A, B+, B, B−, C+, and C) are applied to different standard score levels. The standard scores of each man are shown by the crosses opposite the various occupations and below the appropriate numbers printed at the top of the sheet.

The shaded area for each occupation indicates a range within which scores are not very dependable. Crosses

## Report on Vocational Interest Test for Men

(See other side for explanation)

Name *Lane, Donald C.* Age *24* Date *1-26-56* Agency or school .................... Case no. ..........

| Group | Occupation | Raw Score | Standard Score |
|---|---|---|---|
| I | Artist | 11 | |
| | Psychologist (rev.) | 31 | |
| | Architect | 20 | |
| | Physician (rev.) | 25 | |
| | Psychiatrist | | |
| | Osteopath | 20 | |
| | Dentist | 12 | |
| | Veterinarian | 11 | |
| II | Physicist | 18 | |
| | Chemist | 32 | |
| | Mathematician | 16 | |
| | Engineer | 33 | |
| III | Production Manager | 37 | |
| IV | Farmer | 25 | |
| | Carpenter | 22 | |
| | Printer | 30 | |
| | Math. Sci. Teacher | 31 | |
| | Policeman | 30 | |
| | Forest Service | 10 | |
| | Army Officer | | |
| | Aviator | 43 | |
| V | Y.M.C.A. Phys. Dir. | 26 | |
| | Personnel Manager | 46 | |
| | Public Administrator | 42 | |
| | Vocational Counselor | | |
| | Y.M.C.A. Secretary | 23 | |
| | Soc. Sci. Teacher | 31 | |
| | City School Supt. | 26 | |
| | Minister | 14 | |
| VI | Musician | 31 | |
| VII | C.P.A. Partner | 55 | |
| VIII | Senior C.P.A. | 54 | |
| | Junior Accountant | 54 | |
| | Office Worker | 44 | |
| | Purchasing Agent | 51 | |
| | Banker | 33 | |
| | Mortician | 35 | |
| | Pharmacist | 36 | |
| IX | Sales Manager | 42 | |
| | Real Estate Slsmn. | 41 | |
| | Life Insurance Slsmn. | 33 | |
| X | Advertising Man | 24 | |
| | Lawyer | 31 | |
| | Author-Journalist | 22 | |
| XI | President | 37 | |
| | Occupational Level | | |
| | Masculinity-Femininity | | |
| | Specialization Level | | |
| | Interest Maturity | | |

Rating scale: C (0–30), B− (30–35), B (35–40), B+ (40–45), A (45–65); 0 5 10 15 20 25 30 35 40 45 50 55 60 65

**FIGURE 6 (Front).**

Reprinted from *Vocational Interest Blank for Men,* by Edward K. Strong, Jr., with the permission of the publishers, Stanford University Press, and Edward K. Strong, Jr. Copyright 1938 by the Board of Trustees of Leland Stanford Junior University.

Your occupational interests are recorded under the heading "standard score" and opposite the appropriate occupations. It is suggested that you plot these scores in the spaces to the right, as is shown below:

| Group | Occupation | Raw Score | Standard Score | C | | | | | | B– | B | B+ | A | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0–5 | 5–10 | 10–15 | 15–20 | 20–25 | 25–30 | 30–35 | 35–40 | 40–45 | 45–50 | 50–55 | 55–60 | 60–65 |
| I | Artist | | 37 | | | | | | | | X | | | | | |
| | Psychologist (rev.) | | 23 | | | | | X | | | | | | | | |
| | Architect | | 48 | | | | | | | | | | X | | | |
| | Physician (rev.) | | 22 | | | | | X | | | | | | | | |
| | Psychiatrist | | | | | | | | | | | | | | | |
| | Osteopath | | | | | | | | | | | | | | | |

The higher a score to the right of the shaded area the greater the certainty that one has the interests characteristic of that occupation. The lower the score to the left of the shaded area the greater the certainty that one does not have the interests of the occupation. Scores falling within the shaded area are indeterminate: they help sometimes to show, along with other scores, the general trend of one's interests in an occupational group. But generally they can be ignored. Consequently, in the above diagram, the standard scores of 23 for psychologist and 22 for physician are disregarded, and we conclude that the individual has an A rating in the interest of an architect and a B rating in the interest of an artist.

Standard scores of 45 and above are rated A, meaning one has the interests characteristic of men successfully engaged in the occupation. Ratings of B+, B, and B– also indicate possession of the interests characterizing men in those occupations, but at the same time they represent less and less assurance that the classification is correct. The higher the score the greater the certainty the man will continue in the occupation.

About 15 percent of men known to be successful rate B+; about 9 percent rate B; about 4 percent, B–; and about 2 percent C. Occasionally a successful man rates below B–. On the other hand, many successful men rate B–, B, and B+, and a few rate A in occupations other than the one in which they are engaged.

Occupations included in the same group all correlate highly with one another.

Men's interests change very little from 25 to 55 years of age. They change somewhat from 20 to 25 years and much more so from 15 to 20 years. Consequently, the younger the man, particularly below 20 years of age, the less certainly can his interests be identified in terms of some occupation. Such changes in interests as take place are more likely to result in higher ratings than the reverse. This is particularly true with respect to ratings in Group V.

The ratings from this test should not be viewed as conclusive; they are not guaranteed as correct. Instead they should be viewed as merely suggestive and to be considered in the light of all other information bearing upon one's vocational choice. Occupations rated A and B+ should be carefully considered before definitely deciding against them; occupations rated C, and B– should be carefully considered before definitely deciding to enter them. Remember only a few from among all the hundreds of occupations are reported on here.

This is a test of your interests. Your abilities must also be considered. Interests point the way you want to go, abilities determine how well you can progress, provided also that you are willing to learn and to work.

Scores on the four special scales are for the use of trained counselors and should be explained personally by them. The OL scale indicates whether one's interests are similar to common workmen (a low score) or to business and professional men (a high score). The MF scale indicates whether one's interests are similar to the interests of women or men. The average man scores 50 on both these scales. The IM scale expresses maturity of interests. One's age must be taken into consideration in interpreting this score. It applies only to men between the ages of 15 and 20 years. The Specialization Level scale pertains to college men as to whether or not they would enjoy advanced study and narrow specialization in their work. See "The Use of Vocational Interest Scales in Planning a Medical Career," by Edward K. Strong, Jr., and Anthony C. Tucker, *Psychological Monographs*, No. 341, 1952, Vol. 66, #9.

Edward K. Strong, Jr.
*Stanford, California*



**FIGURE 6 (Back).**

## Report on Vocational Interest Test for Men

(See other side for explanation)

Name Stevenson, Charles L. Age 28 Date 9-12-55 Agency or school ............ Case no. ........

Scale: C | B− | B | B+ | A — 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65

| Group | Occupation | Raw Score | Standard Score |
|---|---|---|---|
| I | Artist | | 39 |
| | Psychologist (rev.) | | 57 |
| | Architect | | 53 |
| | Physician (rev.) | | 51 |
| | Psychiatrist | | |
| | Osteopath | | |
| | Dentist | | 45 |
| | Veterinarian | | |
| II | Physicist | | |
| | Chemist | | 60 |
| | Mathematician | | 45 |
| | Engineer | | 54 |
| III | Production Manager | | 38 |
| IV | Farmer | | |
| | Carpenter | | |
| | Printer | | |
| | Math. Sci. Teacher | | 51 |
| | Policeman | | |
| | Forest Service | | |
| | Army Officer | | |
| | Aviator | | |
| V | Y.M.C.A. Phys. Dir. | | |
| | Personnel Manager | | 33 |
| | Public Administrator | | |
| | Vocational Counselor | | |
| | Y.M.C.A. Secretary | | 17 |
| | Soc. Sci. Teacher | | 22 |
| | City School Supt. | | 19 |
| | Minister | | 29 |
| VI | Musician | | 46 |
| VII | C.P.A. Partner | | 32 |
| VIII | Senior C.P.A. | | |
| | Junior Accountant | | 30 |
| | Office Worker | | |
| | Purchasing Agent | | 20 |
| | Banker | | 12 |
| | Mortician | | |
| | Pharmacist | | |
| IX | Sales Manager | | 8 |
| | Real Estate Slsmn. | | 18 |
| | Life Insurance Slsmn. | | 9 |
| X | Advertising Man | | 28 |
| | Lawyer | | 30 |
| | Author-Journalist | | 37 |
| XI | President | | 24 |
| | Occupational Level | | |
| | Masculinity-Femininity | | |
| | Specialization Level | | |
| | Interest Maturity | | |

**FIGURE 7.**

Reprinted from Edward K. Strong, Jr., *Vocational Interest Blank for Men,* Stanford University Press.

NAME Stevenson, Charles L. AGE 28 SEX M GROUP ________ DATE OF TEST 4-12-56
Print Last First Initial M or F

First Revision, February 1951

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SELF-INTERPRETING

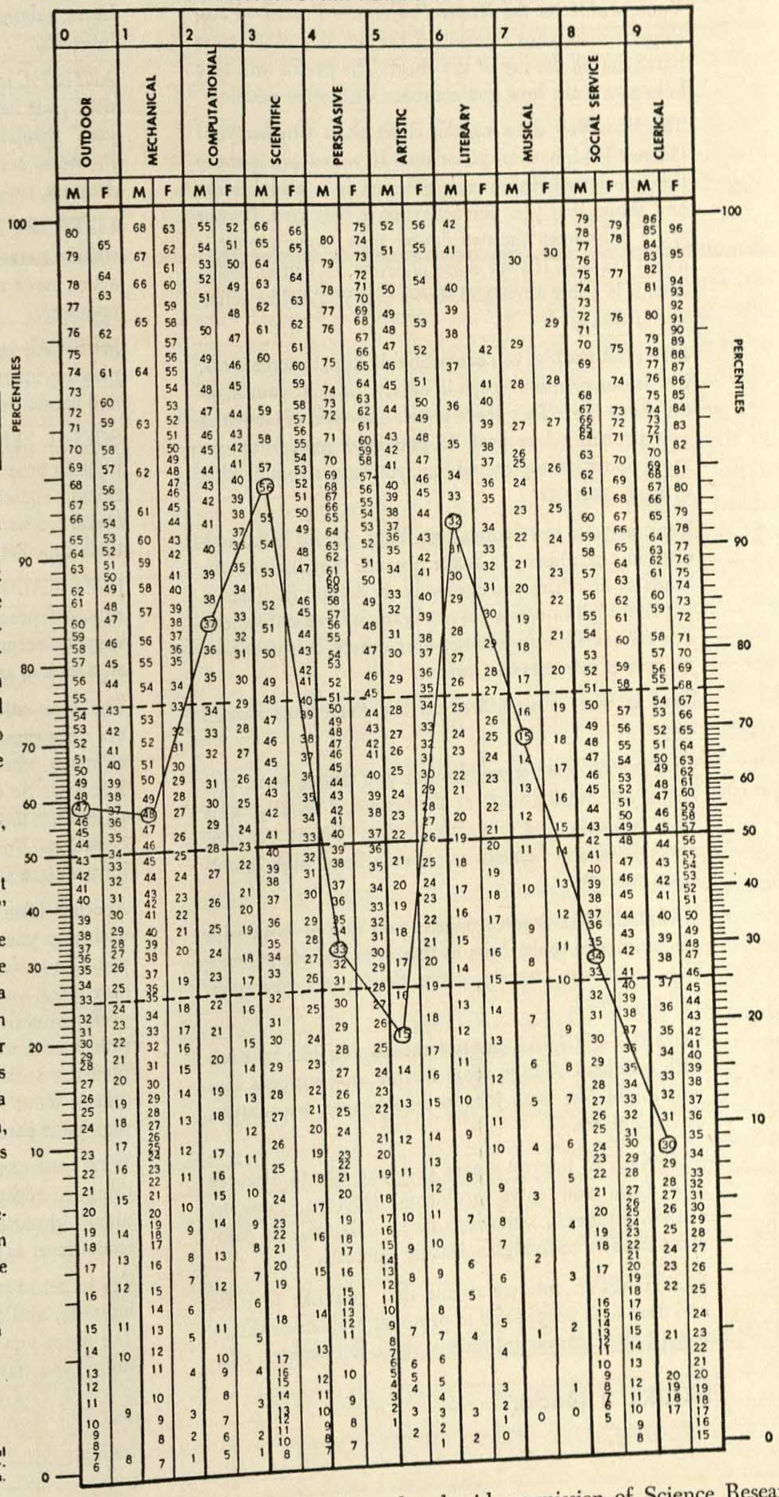
# PROFILE SHEET

for the

## KUDER PREFERENCE RECORD VOCATIONAL

Form C

MEN and WOMEN




### DIRECTIONS FOR PROFILING

1. Copy the V-Score from the back page of your answer pad in the box at the right. [40]

   *If your V-Score is 37 or less,* there is some reason for doubting the value of your answers, and your other scores may not be very accurate. *If your V-Score is 45 or more,* you may not have understood the directions, since 44 is the highest possible score. *If your score is not between 38 and 44,* inclusive, you should see your adviser. He will probably recommend that you read the directions again, and then that you fill out the blank a second time, being careful to follow the directions exactly and to give sincere replies.

   If your V- Score is between 38 and 44, inclusive, go ahead with the following directions.

2. Copy the scores 0 through 9 in the spaces at the top of the profile chart. Under "OUTDOOR" find the number which is the same as the score at the top. Use the numbers under M if you are a man and the numbers under F if you are a woman. Draw a line through this number from one side to the other of the entire column under OUTDOOR. Do the same thing for the scores at the top of each of the other columns. If a score is larger than any number in the column, draw a line across the top of the column; if it is smaller, draw a line across the bottom.

3. With your pencil blacken the entire space between the lines you have drawn and the bottom of the chart. The result is your profile for the *Kuder Preference Record—Vocational.*

   An interpretation of the scores will be found on the other side.

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Please use code number 7-299 when reordering this profile.

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FIGURE 8 (Front).

# *Your* INTEREST PROFILE

Your profile on the *Kuder Preference Record—Vocational* shows your interest in the ten important areas listed across the top of the chart. The profile will also help you learn how you compare with other people.

The lines you drew on the chart show whether your interest is high, average, or low. If your score is above the top dotted line in any column, it is a high score and shows that you like activities in that area. If your score is between the two dotted lines, your interest is about average. If your score is below the bottom dotted line, it is a low score and shows that you dislike activities of that type.

Like most people, you are probably high in some areas, low in some, and average in others. Look at your highest score first. This score shows the type of activities you probably like best. If you have more than one score above the top dotted line, you have a combination of high interests.

Look at your low scores, too. They should be considered in any plans you make because they indicate the kinds of activities you probably do not enjoy. Remember that high interests are not better or worse than low, nor are some interests better than others. It is your own *pattern* of interests that counts.

Here is what your scores on the *Preference Record* mean:

OUTDOOR interest means that you prefer work that keeps you outside most of the time and usually deals with animals and growing things. Forest rangers, naturalists, and farmers are among those high in outdoor interests.

MECHANICAL interest means you like to work with machines and tools. Jobs in this area include automobile repairmen, watchmakers, drill press operators, and engineers.

COMPUTATIONAL interest means you like to work with numbers. A high score in this area suggests that you might like such jobs as bookkeeper, accountant, or bank teller.

SCIENTIFIC interest means that you like to discover new facts and solve problems. Doctors, chemists, nurses, engineers, radio repairmen, aviators, and dieticians usually have high scientific interests.

PERSUASIVE interest means that you like to meet and deal with people and to promote projects or things to sell. Most actors, politicians, radio announcers, ministers, salesmen, and store clerks have high persuasive interests.

ARTISTIC interest means you like to do creative work with your hands. It is usually work that has "eye appeal" involving attractive design, color, and materials. Painters, sculptors, architects, dress designers, hairdressers, and interior decorators all do "artistic" work.

LITERARY interest shows that you like to read and write. Literary jobs include novelist, historian, teacher, actor, news reporter, editor, drama critic, and book reviewer.

MUSICAL interest shows you like going to concerts, playing instruments, singing, or reading about music and musicians.

SOCIAL SERVICE interest indicates a preference for helping people. Nurses, Boy or Girl Scout leaders, vocational counselors, tutors, ministers, personnel workers, social workers, and hospital attendants spend much of their time helping other people.

CLERICAL interest means you like office work that requires precision and accuracy. Jobs such as bookkeeper, accountant, file clerk, salesclerk, secretary, statistician, and traffic manager fall in this area.

The occupations listed for each area on this profile are only examples. Your counselor can help you think of many others that are suggested by your pattern of interests. He can also tell you about many books and pamphlets that will help you learn more about these occupations. You may find that many school courses and leisure-time activities fit into your high interest areas.

Another form of the *Preference Record*, the *Personal*, will help you find out more about the types of things you like to do. It will help you discover, for example. how much you like meeting new people, whether you prefer situations you are familiar with, if you would rather work with ideas or things, how much you prefer pleasant social situations, and if you like to direct others. Your scores in these areas, too, will help you plan your career.

What you can do well depends, of course, on many things in addition to interest. Your abilities are particularly important. Many abilities can be measured by tests. Here, again, your counselor is the person to see.

Try to get as much information as you can about your interests, abilities, and the jobs you want to consider. The more you know about yourself, the more opportunity you have to make wise plans for your future.

**FIGURE 8 (Back).**

falling to the right or left of the shaded areas are likely to be more nearly indicative of the true interests of the individual than crosses within this range.

In general, ratings of *A* indicate close agreement between the interests of the individual taking the test and those of men successfully engaged in the occupation concerned; ratings of *B*+ show considerable agreement in interests; ratings of *B* suggest that there may be some correspondence between the interests of the individual and those of persons engaged in the occupations for which these ratings are obtained but that the agreement is not very close; ratings of *B*−, C+, and C indicate little or no agreement in interests.

The interests of Donald C. Lane (Figure 6) apparently agree very closely with those of accountants. He has *A* ratings for CPA partner, senior CPA, and junior accountant. He has almost as high an *A* rating for purchasing agent, which falls within the same general group of interests as senior CPA and junior accountant. He obtained a slightly lower rating, but still within the A category, for personnel manager, as well. There also seems to be considerable correspondence between the interests of this man and those of aviators, public administrators, office workers, sales managers, and real estate salesmen, although his score in the last of these fields is doubtful since it falls within the shaded area. There may also be some correspondence between this man's interests and those of production managers, morticians, pharmacists, and presidents of manufacturing concerns, for he obtained *B* ratings in these four areas. It seems probable that the agreement between Lane's interests and those of persons engaged in the other occupations for which his blank was scored is either slight or entirely lacking. On the basis of the results of this inventory, one would be inclined to suggest that, in his choice of an occupation, this young man give serious thought to public or private accounting or some type of work calling for managerial interests, such as personnel manager, public administrator, or sales manager. He might also consider the position of purchasing officer for a business organization. Although these results should, of course, be checked against other information, it seems fairly clear that his interests lie in the general field of business and not in the sciences, the professions, or the arts.

Charles L. Stevenson (Figure 7) has high *A* ratings for chemist and psychologist and also *A* ratings for architect, physician, engineer, mathematics-science teacher, musician, mathematician, and dentist. Apparently his interests agree well with those of men successfully engaged in all nine of these occupations. He has no *B*+ ratings, but he has ratings of *B* for artist, production manager, and author-journalist. His ratings of *B*−, *C*+, and *C* are concentrated in the fields of business, salesmanship, and social service.

In contrast to Lane's interest profile, the scores made by Stevenson suggest the desirability of vocational choice in the professions, science, or engineering. It should be kept in mind, however, that in actual counseling practice the Strong interest test results would be considered by the adviser as only one part of a much larger picture, made up of information concerning background, experience, education, intelligence, achievement, special aptitudes, and health and physical characteristics.

The profile of percentiles for the same individual, Charles Stevenson, on the ten scales of the Kuder Preference Record is shown in Figure 8. In general, the results of this man's Kuder Preference Record tend to confirm his scores on the Strong blank. He has a very high interest score in the field of science and a comparatively high score on the computational scale, both of which are in agreement with the Strong data. He is above the median on the musical scale, a finding which one would expect on the basis of the Strong profile. He is also slightly above the median in outdoor and mechanical interests. His scores fall below the median in the persuasive, artistic, social service, and clerical scales, which results tend, on the whole, to conform to the Strong results. The only point where there is a clear-cut difference is a percentile slightly above 90 on the literary scale of the Kuder Preference Record as compared with a rating of *B* on the author-journalist scale of the Strong blank.

The problems of counseling those who have seen extensive military service abroad are social and psychological quite as much as they are vocational. Unusual tact, understanding, and foresight are needed in the counseling of disabled veterans. These men should, as far as possible, be guided into a program of education which will make it possible for them to take permanent positions later and to maintain themselves vocationally. From the therapeutic, as well as the vocational, standpoint, it is imperative that extreme care be used to see that these men undertake vocational programs that are within their capacity and in which they can develop self-confidence and acquire, so far as possible, a belief in their ability to lead normal, everyday lives.

## EFFECT OF CHANGING CONCEPTS OF SOCIAL RESPONSIBILITY FOR EDUCATION UPON GUIDANCE IN THE FUTURE

In the earlier years of our history as a nation, education above the common school in which the three

R's were taught was wholly a responsibility of the individual and his family. During the nineteenth century the concept of the free public high school came to be accepted, and its legality was confirmed in the famous Kalamazoo Court decision. At the college level, free public institutions began to be established and the basis of the great land grant colleges and universities was laid, while in the same period the Dartmouth Court decision guaranteed the charter of private colleges.

By the early part of the twentieth century, secondary education was theoretically within the reach of practically all youth in the United States, and college attendance was available to hundreds of thousands. But vast numbers were under the handicap of economic barriers which made it extremely difficult for them to finish secondary school and enter college, even when they were within commuting distance of public higher institutions. Many private colleges set up liberal systems of scholarships, and philanthropic agencies and organizations within particular professional fields undertook to provide financial support for selected young people of high ability. At the same time, the country went through a gradual and comparatively mild economic revolution so that the financial position of the lower-income groups was relatively improved, and more families could afford to keep their children in school over a long period. Hence the number going on for higher education steadily increased, and great impetus, as we have already seen, was given to this movement by the GI Bill (Public Law 346). As Kandel has said, "The operation of the GI Bill has demonstrated, even if only superficially, that far more of the nation's youth can profit from education beyond high school than was thought possible in prewar years" (17).

Nevertheless, it was estimated during the 1950's that not more than 50 percent of youth with high ability were going on to college (14). This situation has been, and is, a matter of national concern, not only because of our democratic concept that every individual ought to have an opportunity to advance as far as he is capable of going, but also because of the common welfare. There is general agreement that the maintenance of our strength and freedom as a nation depends in large measure upon our success in providing advanced education for youth of high ability so that they may contribute to progress in scientific, professional, and technical fields, as well as provide new leadership in social science and the humanities.

The need is given concrete recognition through renewed and greater efforts in the field of philanthropy, such as the National Merit Scholarship Program established in 1955 by The Fund for the Advancement of Education and placed under the direction of John M. Stalnaker. There is a growing feeling, however, that the financial need is far greater than can be met by private philanthropy alone and that a liberal system of national scholarships subsidized by the federal government is essential in the near future. A bill to establish such scholarships has been introduced in several sessions of Congress (8).

As Gibson pointed out, "If we were to adopt the system that would allow all youth to have the educational benefits of the Korean bill, if they can qualify, we would have a system of higher education in America that would be democratic. Every youth would know that he could go to college if his abilities are high enough to warrant the expenditure of government funds on his education" (12:5). Similarly, Mathewson (22) stressed the need for national scholarships for able youth, perhaps 10 to 25 percent, and considered what this would mean from the standpoint of counseling. He suggested that counseling centers separate from the selection process would be needed, and that these might be available to all youth and adults in the community who might wish to use them.

A system of national scholarships which will assure higher education for 10 to 25 percent of the most able youth will challenge guidance services in all kinds of institutions throughout the nation and will call for full coöperation from these services. It will be necessary to identify and select the most able young people; to motivate them with a desire to obtain advanced training, both to enhance their own personal welfare and to contribute to the national welfare; and to assess their peculiar abilities and to provide educational guidance so that they will enter upon fields of training commensurate with their abilities. Here the concept of guidance as a means of individual growth merges with the concept of guidance as an instrument of national policy. Both ends are served by the same process.

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